

OPERATION AND PARTS MANUAL

STOW

A DIVISION OF MULTIQUIP INC.

MODEL MS-70

PLASTER AND MORTAR MIXER

(GASOLINE ENGINE/ELECTRIC MOTOR)

Revision #3 (03/26/10)

**THIS MANUAL MUST ACCOMPANY
THE EQUIPMENT AT ALL TIMES.**



WARNING



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents, and some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks.
- Cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: **ALWAYS** work in a well ventilated area, and work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER *ON-HAND*

Post Office Box 6254
Carson, Ca 90749

888-252-STOW
FAX:

800-427-1244
310-537-3700

FAX: 800-672-7877
FAX: 310-637-3284

800-421-1244
310-537-3700

FAX: 310-537-4259

800-478-1244

FAX: 310-631-5032

800-421-1244, EXT. 279
310-537-3700, EXT. 279

FAX: 310-537-1173

310-661-4242
877-289-7869 (877-BUY-STOW)

FAX: 310-604-9237

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This manual MUST accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

The information and specifications included in this publication were in effect at the time of approval for printing. Illustrations are based on the *MS-70 Plaster/Mortar Mixer*. STOW Construction Equipment reserves the right to discontinue or change specifications, design or the information published in this publication at any time without notice and without incurring any obligations.

**To find the latest revision of this
publication, visit our website at:
www.stowmfg.com**



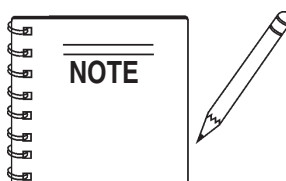
STOW MS-70 PLASTER/MORTAR MIXER — TABLE OF CONTENTS

**STOW MS-70 — Plaster/Mortar
Mixer**

HONDA GX240K1HA2 ENGINE

Terms and Conditions of Sale — Parts 92

Component Drawings



STOW MS-70 MIXER — PARTS ORDERING PROCEDURES

When ordering parts, please supply the following information:

- ☐ Dealer account number
- ☐ Dealer name and address
- ☐ Shipping address (if different than billing address)
- ☐ Return fax number
- ☐ Applicable model number
- ☐ Quantity, part number and description of each part
- ☐ Specify preferred method of shipment:
 - ✓ FedEx or UPS Ground
 - ✓ FedEx or UPS Second Day or Third Day
 - ✓ FedEx or UPS Next Day
 - ✓ Federal Express Priority One
 - ✓ DHL
 - ✓ Truck

Note: Unless otherwise indicated by customer, all orders are treated as "Standard Orders", and will ship within 24 hours. We will make every effort to ship "Air Shipments" the same day that the order is received, if prior to 2PM west coast time. "Stock Orders" must be so noted on fax or web forms.



Here's how to get help...

Please have the model and serial number on hand when calling.

STOW MAIN OFFICE

18910 Wilmington Ave. 800-421-1244
Carson, CA 90746 FAX: 310-537-3927
Email: stow@stowmfg.com
Internet: www.stowmfg.com

SALES DEPARTMENT

310-661-4242 Fax: 310-604-9237
877-289-7869 (877-BUY-STOW)

PARTS DEPARTMENT

800-427-1244 FAX: 800-672-7877
310-537-3700 FAX: 310-637-3284

SERVICE DEPARTMENT

800-421-1244 FAX: 310-537-4259
310-537-3700

TECHNICAL ASSISTANCE

800-478-1244 FAX: 310-631-5032

WARRANTY DEPARTMENT

800-421-1244, EXT. 279 FAX: 310-537-1173
310-537-3700, EXT. 279

Place Your Parts Order Via Web or Fax For Even More Savings!

(Domestic USA Dealers Only)

Extra Discounts!

All parts orders which include complete part numbers and are received by our automated web parts order system, or by fax qualify for the following extra discounts:

Ordered via	Standard orders	Stock orders (\$750 list and above)
Fax	3%	10%
Web	5%	10%

Special freight allowances when you order 10 or more line items via Web or Fax!**

FedEx Ground Service **at no charge for freight**

No other allowances on freight shipped by any other carrier.

****Common nuts, bolts and washers (all items under \$1.00 list price) do not count towards the 10+ line items.**

NOTE: DISCOUNTS ARE SUBJECT TO CHANGE

STOW

A DIVISION OF MULTQUIP INC.
STOW CONSTRUCTION EQUIPMENT

A DIVISION OF MULTQUIP INC.

POST OFFICE BOX 6254 CARSON, CA 90749
888-252-STOW(888-252-7869) 310-537-3700
FAX: 310-537-1986 FAX: 800-556-1986
E-MAIL: stow@multiquip.com INTERNET: www.stowmfg.com

Direct TOLL-FREE access to our Parts Department:

Toll-free nationwide — 800-427-1244

Toll-free FAX — 800-6-PARTS-7 (800/672-7877)

STOW MS-70 PLASTER/MORTAR MIXER — SPECIFICATIONS

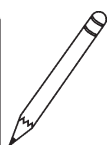
TABLE 1. MIXER SPECIFICATIONS

Capacity	7.0 cu. ft (198 liters)
Bag Capacity	1-1/2 to 2-1/2 bags
Weight	788 lbs. (357 kg.)
Height W/Dump Handle	73 in. (185 cm.)
Discharge Height	21 in. (53 cm.)
Drive	V-Belt/Gear
Dump Action	Manual

Table 2. Specifications (Engine & Electric Motor)

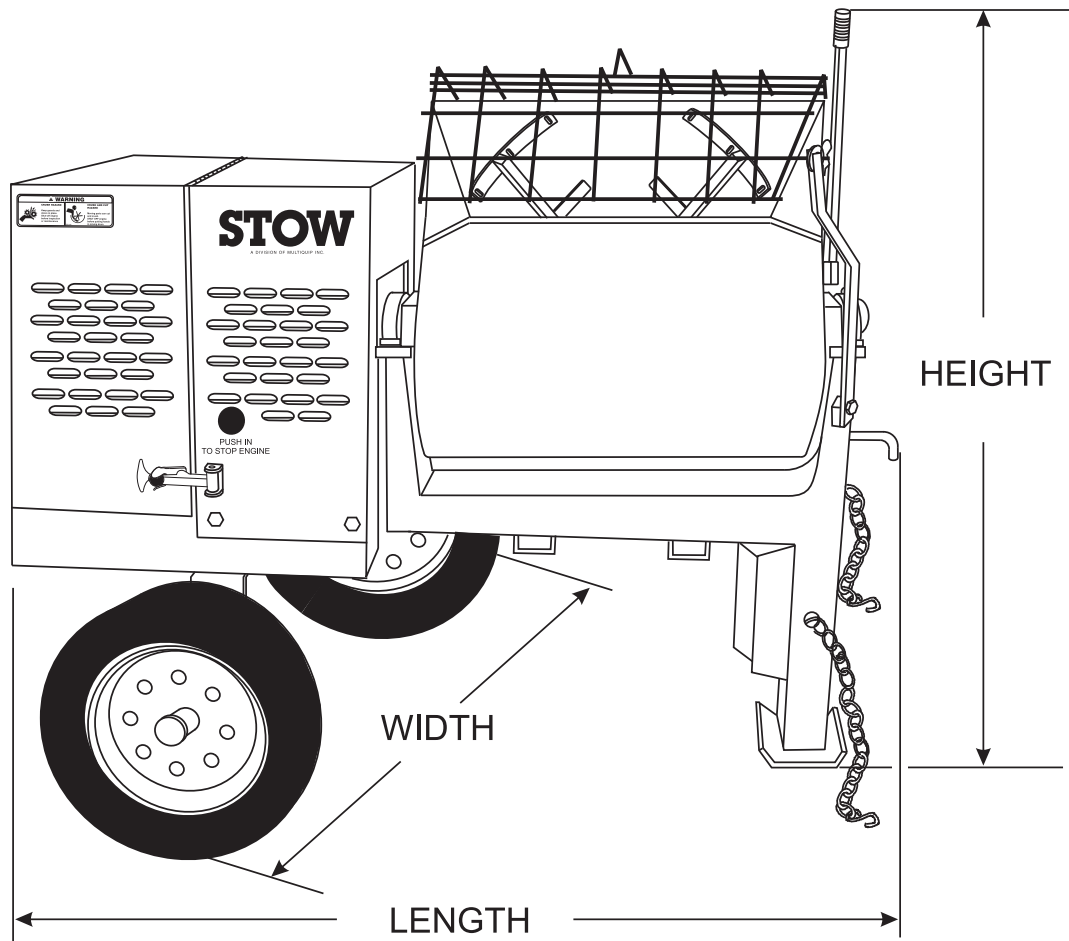
Engine/Electric Motor	Model	HONDA GX240K1HA2	BALDOR 35L229S302
	Type	Air-cooled 4 stroke, OHV, Horizontal Shaft Gasoline Engine	1.5 HP, 115/230, Single Phase Electric Motor
	Bore X Stroke	2.90 in. X 2.30 in. (73 mm x 58 mm)	N/A
	Displacement	14.81 cc	N/A
	Max Output	8.0 H.P./3600 R.P.M.	1.5 H.P./1725 RPM
	Fuel Tank Capacity	Approx. 1.59 U.S. Gallons (6 Liters)	N/A
	Fuel	Unleaded Gasoline	N/A
	Lube Oil Capacity	2-1/3 pints	N/A
	Speed Control Method	Centrifugal Fly-weight Type	N/A
	Starting Method	Recoil Start	N/A
Dimensions (L x W x H)		14.0 x 16.9 X 16.1 in. (355 X 430 X 410 mm)	13.3 x 8.7 X 9.06 in. (338 X 220 X 230 mm)
Dry Net Weight		55.1 lbs. (25 Kg.)	Approx. 22 lbs. (10 Kg.)

NOTE



In accordance with our established policy of constant improvement, we reserve the right to amend these specifications at any time without notice.

STOW MS-70 PLASTER/MORTAR MIXER — DIMENSIONS



OPTIONAL TOW BARS
APPROXIMATE LENGTH
36 IN. (91.44 CM.)

HBC-1
2-INCH
BALL COUPLER

HPC-1
1-INCH
PIN COUPLER

HLC-1
LOOP COUPLER

TABLE 3. DIMENSIONS

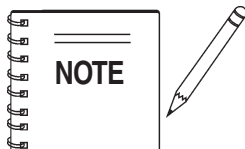
Description	Dimensions in. (cm)
Length (w/ Tow Bar)	67 in. (170 cm)
Width	50 in. (127 cm)
Height	56 in. (142 cm)

Figure 1. Dimensions

STOW MS-70 MIXER — SAFETY MESSAGE ALERT SYMBOLS

FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.



This Owner's Manual has been developed to provide complete instructions for the safe and efficient operation of the **STOW Model MS-70 mortar and plaster** mixer. Refer to the engine manufacturers instructions for data relative to its safe operation.

Before using this mixer, ensure that the operating individual has read and understands all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three (3) Safety Messages shown below will inform you about potential hazards that could injure you or others. The Safety Messages specifically address the level of exposure to the operator, and are preceded by one of three words: **DANGER**,

DANGER

You **WILL** be **KILLED** or **SERIOUSLY INJURED** if you **DO NOT** follow these directions.

WARNING

You **CAN** be **KILLED** or **SERIOUSLY INJURED** if you **DO NOT** follow these directions.

CAUTION

You **CAN** be **INJURED** if you **DO NOT** follow these directions.


HAZARD SYMBOLS

 **WARNING**

Lethal Exhaust Gas Hazards

NEVER

A black silhouette of a person's head and shoulders, with a cloud of exhaust gas coming out of the mouth.

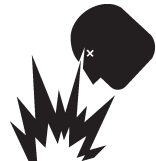
 **WARNING**


Explosive Fuel Hazards

Gasoline

DO NOT


DO NOT
DO NOT

A black silhouette of a gasoline splash or explosion.

 **WARNING**

Burn Hazards

DO NOT

A black silhouette of a hand being burned by a flame.

 **WARNING**

Respiratory Hazards

ALWAYS

A black silhouette of a respirator mask.

STOW MS-70 MIXER — SAFETY MESSAGE ALERT SYMBOLS

CAUTION

Rotating Parts Hazards

NEVER



CAUTION

Equipment Damage
Hazards

CAUTION

Accidental Starting Hazards

ALWAYS

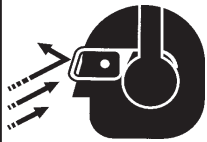
OFF

ON/OFF



CAUTION

Eye and Hearing Hazards



ALWAYS

STOW MS-70 PLASTER/MORTAR MIXER — RULES FOR SAFE OPERATION



DANGER

Read this manual!

GENERAL SAFETY

■ DO NOT



■

■ NEVER



■ NEVER



■ NEVER



■ ALWAYS



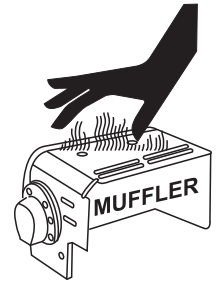
■ NEVER

■

■

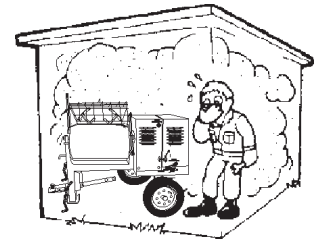
■ NEVER

■ NEVER



■ High Temperatures

■

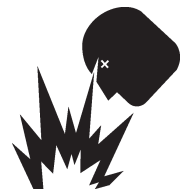


■ ALWAYS

■ ALWAYS
flammable

DO NOT _____ stop the

■ NEVER



■

■

■

■



WARNING

Starting the Mixer Engine

NEVER

STOW MS-70 PLASTER/MORTAR MIXER — RULES FOR SAFE OPERATION

■ ALWAYS

■ NEVER

■ ALWAYS

■ ALWAYS

■ ALWAYS

■ ALWAYS

■ DO NOT

■ CAUTION

■

■

■

■

■

■ NEVER



WARNING

Stand Clear of the
Mixer when in use

■

■

TRANSPORTING

■ ALWAYS

■

■

MAINTENANCE

■ NEVER

■ ALWAYS

■

■

■

■ DO NOT

EMERGENCIES

■ ALWAYS

first aid kit.



■



STOW MS-70 PLASTER/MORTAR MIXER —TOWING GUIDELINES

Towing Safety Precautions



Regularly Inspect Towing Components

- 

torque wrench

-

-

-

-

- NEVER**

- 

CAUTION

Replacing Towing Components

- ## Safety

- # NEVER

- ## Safety

-

55

10 15 MPH

Mixer Tow Bar Vehicle Connection (Pintle and Loop)

- *choked blocks*

-

-

STOW MS-70 PLASTER/MORTAR MIXER — SAFETY CHAIN CONNECTION



CAUTION

Always Tow with
a Safety Chain

NEVER!

Tow Bar to Mixer Connection

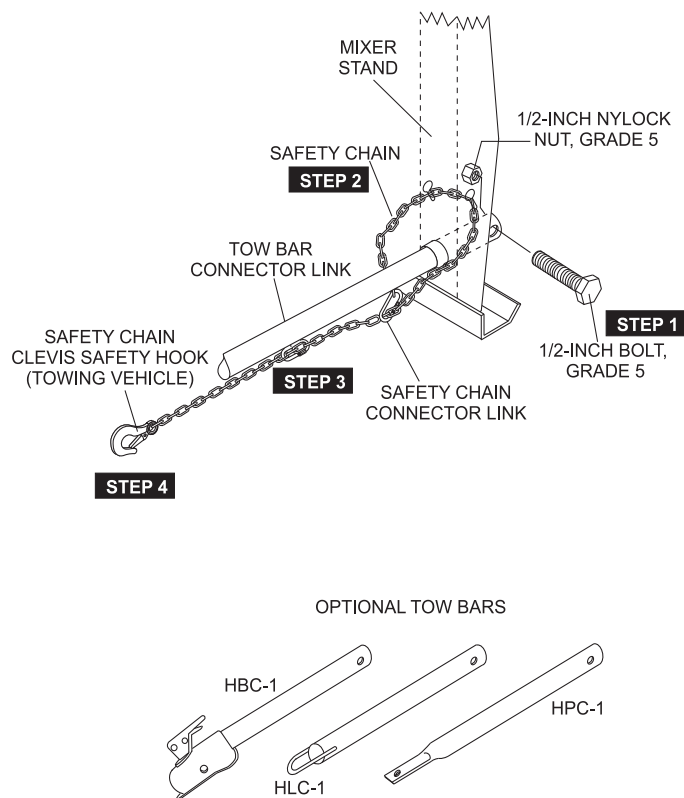


Figure 2. Tow Bar and Safety Chain Installation



CAUTION

Drum Safety
when Towing

DO NOT

right

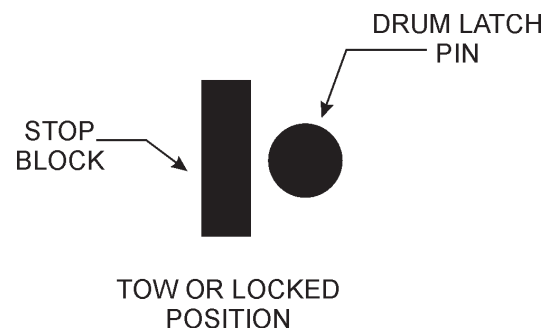


Figure 3. Drum Latch Pin
(Tow or Locked Position)

MS-70 PLASTER/MORTAR MIXER — OPERATION AND SAFETY DECALS

Machine Safety Decals

The STOW MS-70 mortar and plaster mixer is equipped with a number of safety decals. These decals are provided for operator safety and maintenance information. Figure 4 below illustrates these decals as they appear on the machine. Should any of these decals become unreadable, replacements can be obtained from your dealer.



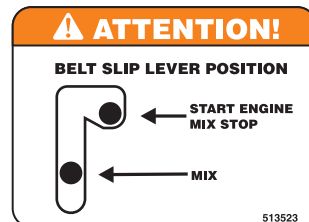
P/N: 35137



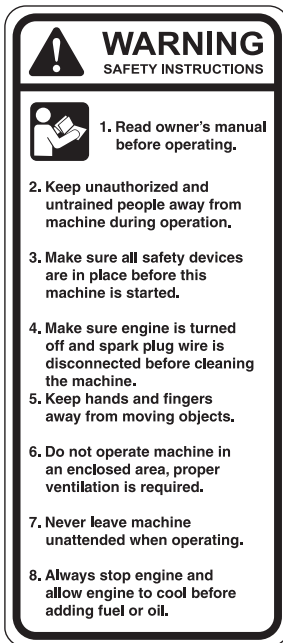
CONTACT MQ PARTS
DEPARTMENT



P/N: DCL335



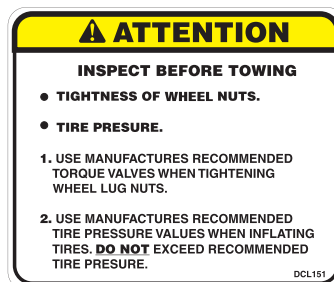
P/N: 513523



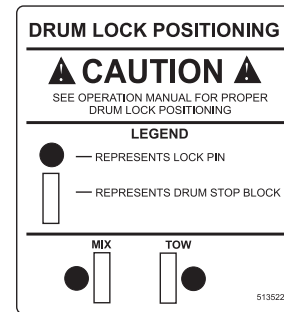
P/N: 504713



P/N: 13118



P/N DCL151



P/N 513522



P/N 513479



P/N: CIPDCL160



P/N: EM948630



P/N: DCL280

Figure 4. Mixer Operation and Safety Decals

STOW MS-70 PLASTER/MORTAR MIXER — GENERAL INFORMATION

Application

The STOW MS-70 series mixers (drum capacity of 7.0 cu. ft./198 liters) are shipped completely assembled and have been factory tested and are ready for use.

This mixer is _____

Hardware

Power Plants

STOW

_____ gasoline engine or a 1.5 HP electric motor. Refer to Table 2 for specific engine or electric motor data information.

Electrical

Table 4. Hardware Torque Recommendations

Hardware Diameter	Torque (ft-lbs)
5/16-inch x 18	14
3/8-inch x 16	24
3/8-inch x 24	37
1/2-inch x 13	39
1/2-inch x 13 (Grade 8)	90

Engine Maintenance

Extension Cables

_____ ². Choose an extension cord of adequate current carrying capacity as referenced in Table 6. Remember

STOW MS-70 PLASTER/MORTAR MIXER — BASIC MIXER COMPONENTS

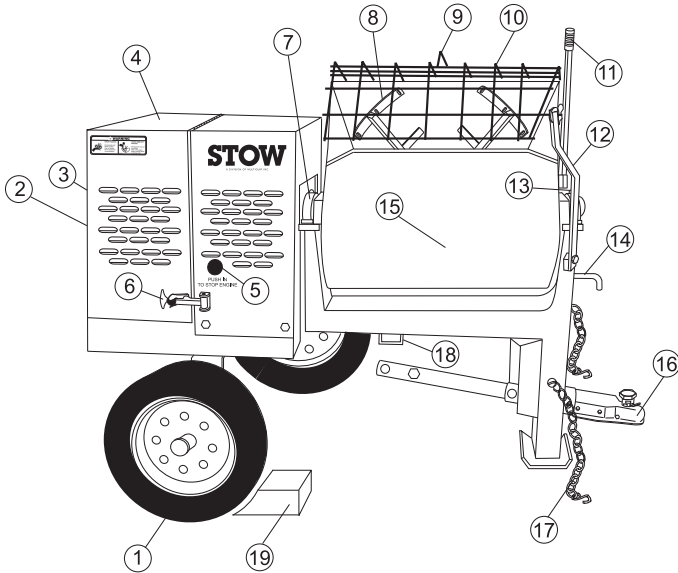


Figure 5. Mixer Components

1. **Tires Ply** — The tire ply (layers) number is rated in letters; This mixer uses 13-inch 4-ply tires.
2. **Engine Cover** — Lift this cover to gain access to the engine compartment.
3. **Belt Slip Lever** — When starting this lever should be move upward and to the left. For mixing place the lever in the down position. See attached decal located adjacent to lever.
4. **ON/OFF Switch (electric)** — This switch is provided on mixers with electric motors. To gain access to this switch, lift the engine cover. When activated it will shut down the electric motor.
5. **ON/OFF Switch (gasoline)** — This switch is provided on mixers with **gasoline** engines only and is located on the side of the engine cover. When activated it will shut down the engine.
6. **Latch** — Use this latch to secure the engine compartment cabinet.
7. **Drum Bearing** — There is on each end of the mixing drum, a sealed bearing. Bearings are packed and sealed at the factory and require no further maintenance.
8. **Mixing Paddles** — Used in the mixing of material. This unit uses four different types of paddles to provide a fast uniform mix.
9. **Bag Cutter** — This feature allows compound mixing bags to be opened easily, therefore allowing the contents of the bag to fall directly into the mixing drum.
10. **Safety Grill** — Provided for operator safety. This safety grill is designed to keep hands and solid objects out of the mixing drum when in use. This grill should be closed at all times when mixer is in use. **DO NOT** remove the grill or grill opening bar. Keep the grill clean by washing it down daily.
11. **Dump Handle** — Pull this handle downward to dump the contents of the drum. Push the handle upward to return the drum to its vertical position.
12. **Safety Grill Lock Handle** — To prevent injury to hands and arms, the safety grill should **ALWAYS** be locked when the mixing of plaster or mortar is required. Also when transporting the mixer the safety grill should be locked. The safety grill should only be un-locked when cleaning of the blades and drum is required.
13. **Pivot Point/Zerk Fitting** — There is, on each end of the mixing drum a zerk grease fitting. These fittings lubricate the dumping mechanism. Lubricate both fittings at least twice a week.
14. **Dump Handle Release Pin** — Pull this pin outward (spring loaded) to release the drum, then pull down on the dump handle to place the drum in the dump position. When drum is in dump position, pin will automatically lock drum.
15. **Steel Mixing Drum** — Mixing materials such as mortar, plaster are to be placed into this drum for mixing. Always clean the drum after each use.
16. **Tow Bar/Coupler** — This mixer uses a 2-inch coupler or pintle towbar.
17. **Safety Chain** — This mixer uses a 3/16-inch thick, 72-inches long zinc-plated safety chain. **ALWAYS** connect the safety chain when towing.
18. **Forklift Pockets** —
19. **Chock Blocks** — Place these blocks (not included as part of the mixer package) under each mixer wheel to prevent rolling.

STOW MS-70 PLASTER/MORTAR MIXER — BASIC ENGINE COMPONENTS

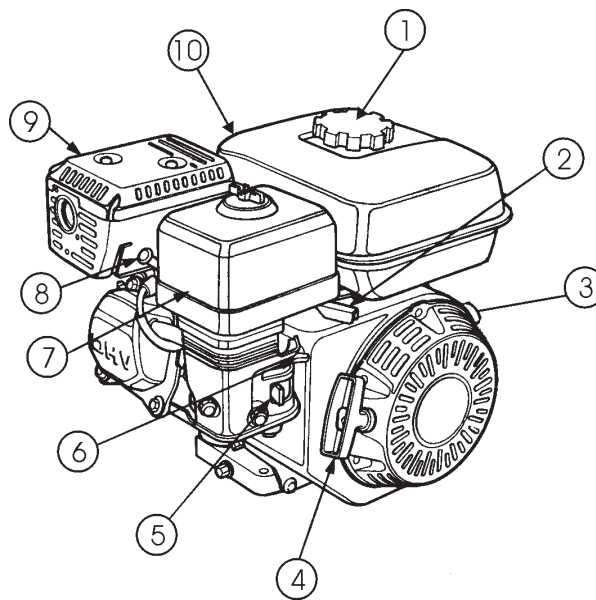



Figure 6. Engine Controls and Components

INITIAL SERVICING

The engine (Figure 6) must be checked for proper lubrication and filled with fuel prior to operation. Refer to the manufacturers Engine manual for instructions & details of operation and servicing.


1. **Fuel Filler Cap** – Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tightened securely. **DO NOT** over fill.

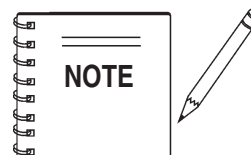
5. **Fuel Valve Lever** – **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.
6. **Choke Lever** – Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
7. **Air Cleaner** – Prevents dirt and other debris from entering the fuel system. Remove wing-nut on top of air filter cannister to gain access to filter element.

**DANGER**

Explosive Fuel Hazard


Adding fuel to the tank should be done only when the engine is stopped and has had an opportunity to cool down. In the event of a fuel spill, **DO NOT** attempt to start the engine until the fuel residue has been completely wiped up, and the area surrounding the engine is dry.






Operating the engine without an air filter, with a damaged air filter, or a filter in need of replacement will allow dirt to enter the engine, causing rapid engine wear.

2. **Throttle Lever** – Used to adjust engine RPM speed (lever advanced forward **SLOW**, lever back toward operator **FAST**).
3. **Engine ON/OFF Switch** – **ON** position permits engine starting, **OFF** position stops engine operations.
4. **Recoil Starter (pull rope)** – Manual-starting method. Pull the starter grip until resistance is felt, then pull briskly and smoothly.

**WARNING**

Burn Hazard

Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operating. **NEVER** operate the engine with the muffler removed.



8. **Spark Plug** – Provides spark to the ignition system. Set spark plug gap to 0.6 - 0.7 mm (0.028 - 0.031 inch) Clean spark plug once a week.
9. **Muffler** – Used to reduce noise and emissions.
10. **Fuel Tank** – Holds unleaded gasoline. For additional information refer to engine owner's manual.

STOW MS-70 PLASTER/MORTAR MIXER — ELECTRIC MOTOR

Electric Motor

! CAUTION

Electric Motor Safety

DO NOT

DO NOT

TABLE 5. ELECTRIC MOTOR WIRING INFORMATION

Motor Horsepower Rating	115-230 VAC - Single Phase	
	NEMA Plug Connector	Mating NEMA Receptacle Connector
1.5 HP (115 VAC)	L5-20P P/N EM940537	L5-20R P/N EM940538
1.5 HP (230 VAC)	L6-20P P/N 940539	L6-20R P/N 940540

Electric Motor Connection

! CAUTION

Electric Motor Connections

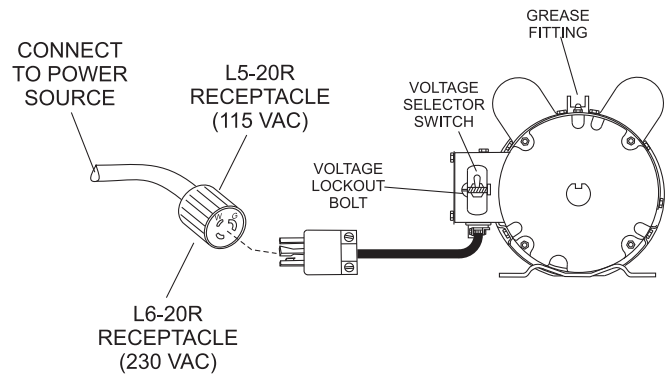
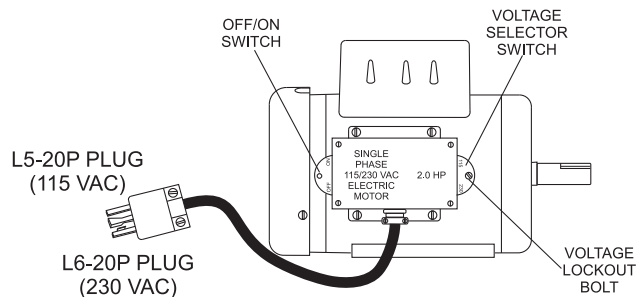


Figure 7. Single Phase Electric Motor With 12-inch Pigtail

NOTE

It is strongly recommended that all electrical wiring be done by a **licensed electrician**.

Special attention should be given to the electric switch as well as the over-and-under voltage protection devices as per regulations set forth in the local electrical safety code handbook

STOW MS-70 PLASTER/MORTAR MIXER — ELECTRIC MOTOR

The motor supplied is wired for 115 VAC grounded operation. Make certain that the correct size grounded (3-wires) extension cord is used. See Table 6.

Motors can burn out when the line voltage falls 10% below the voltage rating of the motor. Failure to use proper voltage will cause the motor to overheat and actuate the overload switch.

If overload protection should actuate because of improper voltage or any other malfunction, turn the main switch on the motor to the "OFF" position and correct the problem, press the reset switch button, and turn the main switch to the "ON" position.

TABLE 6. RECOMMENDED EXTENSION CORD SIZES

Model	Motor	Voltage	50 ft. (15.24 m)	75 ft. (22.86 m)	100 ft. (30.48 m)	200 ft. (60.96 m)
WM-70 (Electric)	1.5 HP	115	No. 12	No. 10	No. 8	No. 6
		230	No. 14	No. 12	No. 12	No. 8

Electric Motor Voltage Switch

1. **ALWAYS** make certain the motor switch is "OFF" and the power cord has been disconnected from the power source.
2. Remove the voltage lock-out bolt (Figure 7). Change the position of the **voltage change toggle switch** from 115 VAC to 230 VAC. The mixer is factory wired for 115 VAC operation.
3. Replace the voltage lock-out bolt.
4. **Important!**, when changing the input voltage to the motor from 115 to 230 VAC, the **plug** on the motor power cord must also be changed. See Table 5.

STOW MS-70 — PADDLE BLADE ADJUSTMENT (STEEL DRUM)

Adjust paddles as shown in Figure 8.

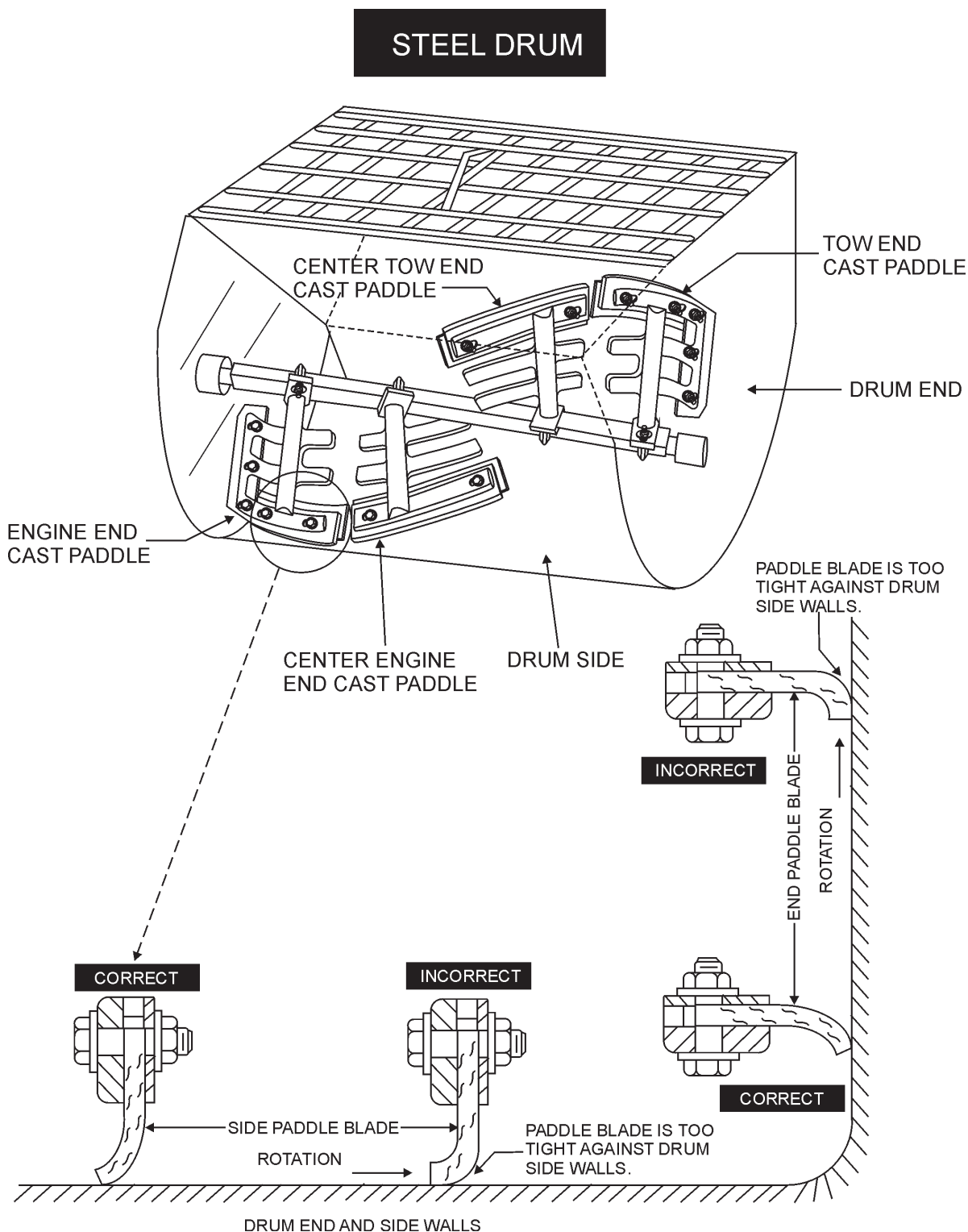


Figure 8. Paddle Blade Adjustment, Steel Drum

STOW MS-70 PLASTER/MORTAR MIXER — INSPECTION

Before Starting


3. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
4. If the oil level is low (Figure 10), fill to the edge of the oil filler hole with the recommended oil type (Table 7). Maximum oil capacity is 2.33 qts. (1.09 liters)

**CAUTION**

Eyesight and Hearing Protection

ALWAYS




**CAUTION**

Inspection & Maintenance Safety

NEVER

ALWAYS



Engine Oil Check

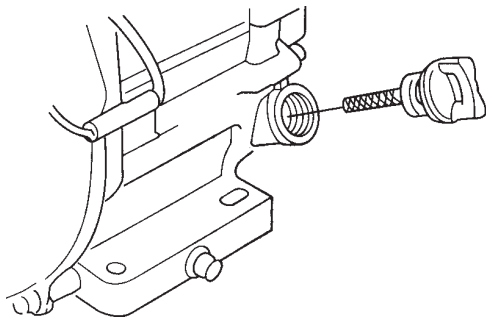


Figure 9. Engine Oil Dipstick (Removal)

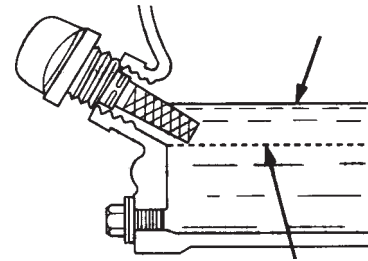
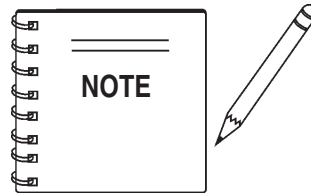
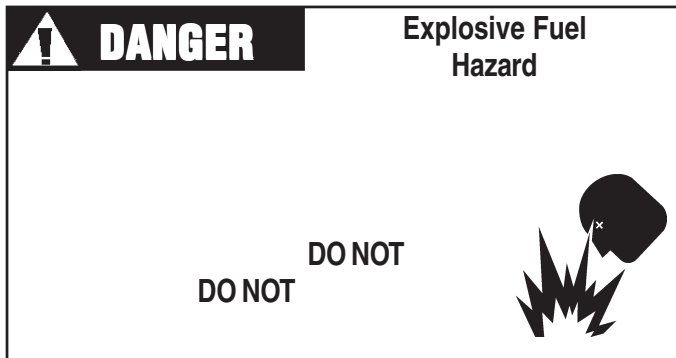


Figure 10. Engine Oil Dipstick (Oil Level)

Table 7. Oil Type		
Season	Temperature	Oil Type
Summer	25°C or Higher	SAE 10W-30
Spring/Fall	25°C~10°C	SAE 10W-30/20
Winter	0°C or Lower	SAE 10W-10

STOW MS-70 PLASTER/MORTAR MIXER — INSPECTION

Fuel Check



1. Remove the gasoline cap located on top of fuel tank.
2. Visually inspect to see if fuel level is low. If fuel is low, replenish with unleaded fuel.
3. When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel.

V-belt Check

Blade Check

Controls

Start/Stop Switches



Grease Fittings (Dumping Mechanism)

STOW MS-70 PLASTER/MORTAR MIXER — START-UP PROCEDURES

This section is intended to assist the operator with the initial start-up of the STOW MS-70H (gasoline engine) or STOW MS-70E (electric motor) mixer. It is extremely important that this section be read carefully before attempting to use the mixer in the field.



DO NOT use your mixer until this section is thoroughly understood.

WARNING

General Safety

CAUTION

Respiratory Hazard



NEVER

Starting (gasoline only)

The following steps outline the procedure for starting the engine. Depending on the type of engine employed in the mixer the steps may vary slightly. If your mixer has an electric motor disregard this section.

1. Move the fuel shut-off lever (Figure 11) to the **ON** position.

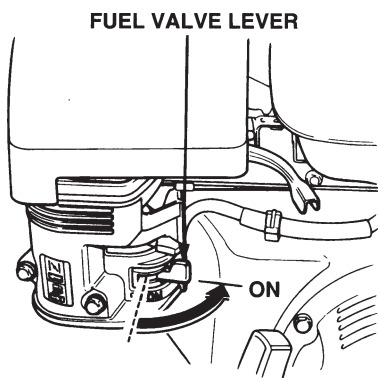


Figure 11. Fuel Shut-OFF Lever

2. To start a cold engine, move the choke lever (Figure 12) to the **CLOSED** position.

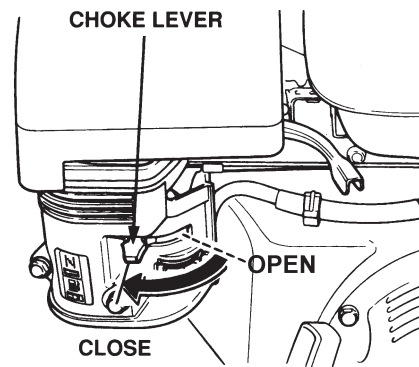


Figure 12. Choke Lever

3. Move the throttle lever (Figure 13) away from the slow position, about 1/3 of the way toward the fast position.

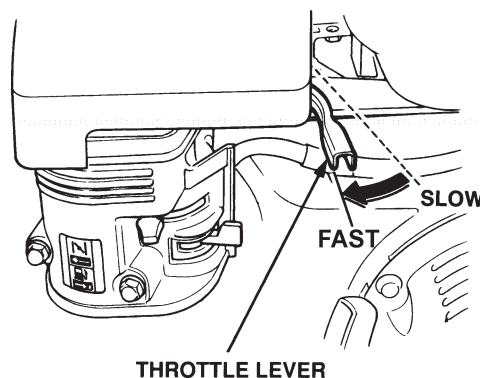


Figure 13. Throttle Lever

MS-70 PLASTER/MORTAR MIXER — START-UP PROCEDURES

- Turn the engine switch (Figure 14) to the **ON** position.

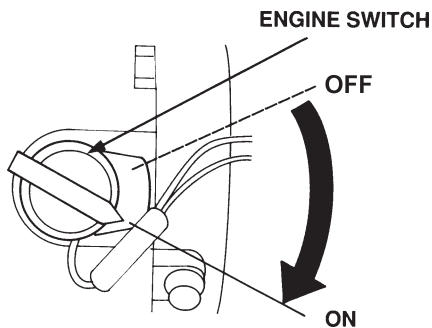


Figure 14. Engine ON/OFF Switch

- The main **start/stop** switch located on the engine cover is (Figure 15) is used to start and stop the engine. Pull this switch outward to start the engine.

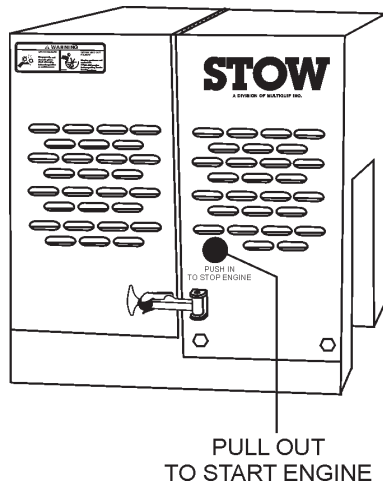


Figure 15. Start/Stop Switch (gasoline engine)

- Place the **belt slip lever** (Figure 16) in the **START/STOP** (disengaged) position.

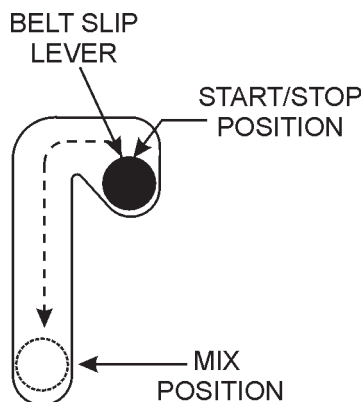


Figure 16. Belt Slip Lever (Start/Stop Position)

CAUTION

Preventing Drum Tipping

Make certain the **drum lock pin** (Figures 17 and 18) is placed to the **RIGHT** (when viewing the mixer from the towpole end) of the drum stop block which is welded to the front side of the drum. Also make sure lock pin is fully engaged (locked). This will prevent the drum from tipping.

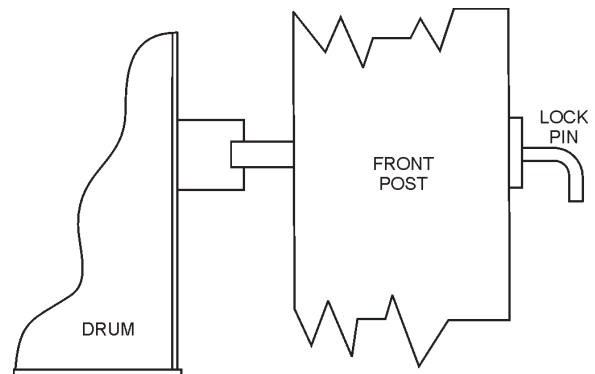


Figure 17. Drum Lock Pin (Side-View)

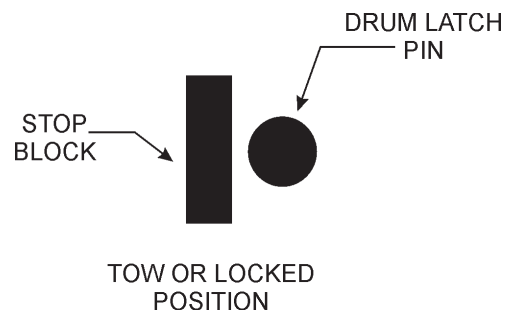


Figure 18. Drum Lock Pin (Right Position)

- Pull the **starter grip** (Figure 19) lightly until you feel resistance, then pull briskly. Return the starter grip gently.

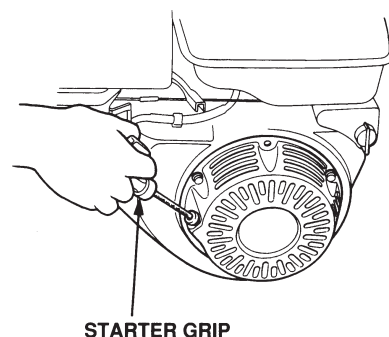


Figure 19. Starter Grip

STOW MS-70 PLASTER/MORTAR MIXER — OPERATION/SHUT-DOWN

- Place the belt slip lever (Figure 20) in the **mix** position. This will tilt the engine placing tension on the V-belts enabling the shaft to rotate.

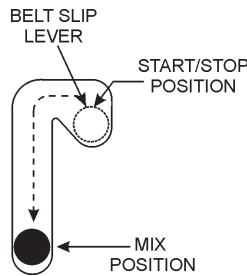


Figure 20. Belt Slip Lever (Mix Position)

Starting (electric only)

- Using an adequate size extension cord (see Table 5), connect one end of the extension cord to the plug on the electric motor, connect the other end to the power source. Make sure the motor is configured for the proper operating voltage.
- Set the electric motor's **ON/OFF** switch (Figure 7) to the **ON** position.

Mixing Dumping

- The paddle shaft inside the drum should be rotating at this time.
- Add a small amount water to the mixing drum.
- Lift the mixing bag compound onto the steel safety grate over the bag cutter and let the contents fall into the drum. Add more water if desired and mix compound to desired consistency.
- When charging, mixing, or dumping a batch of plaster or mortar the **drum lock pin** should be placed to the **left** (when viewing the mixer from the towpole end) of the drum stop block which is welded to the front side of the drum. See Figure 21.

This will allow the operator to use both hands on the drum handle during dumping. Please note that when the lock pin is placed to the left, the drum will be maintained in the vertical position as the paddles rotate. To discharge the material the operator should hold the dump handle with **both hands** and rotate the drum to discharge the desired amount of material.

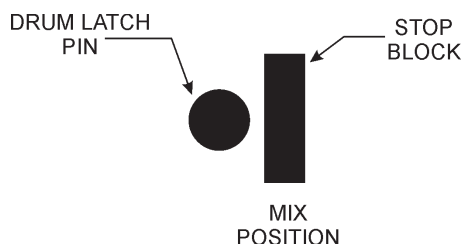


Figure 21. Drum Lock Pin (Left Position)

WARNING

Dump Handle Safety

Be sure to stand clear of the **dump handle** (Figure 22) when the mixer is operational. Any binding of material between the mixer blades and the drum will cause the drum handle to move to the discharge position and could cause bodily harm.



Figure 22. Stand Clear of Dump Handle

STOPPING THE MIXER (gasoline engine)

- Place the **belt slip lever** in the **start/stop** position (Figure 20).
- Push the main **start/stop** switch (Figure 15) inward to stop the engine.
- Turn the fuel shut-off valve to the **OFF** position.
- Disconnect the spark plug.
- Clean mixer as referenced in the maintenance section of this manual.

STOPPING THE MIXER (electric motor)

- Place the electric motor's **ON/OFF** switch (Figure 4) in the **OFF** position.
- Disconnect the electric motor's extension cord from its power source.
- Clean mixer as referenced in the maintenance section of this manual.

STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (ENGINE)

Use Table 8 as a general maintenance guideline when servicing your engine. For more detail engine maintenance information, refer to the engine owner's manual supplied with your engine.

Table 8. Engine Maintenance Schedule

DESCRIPTION (3)	OPERATION	BEFORE	FIRST MONTH OR 10 HRS.	EVERY 3 MONTHS OR 25 HRS.	EVERY 6 MONTHS OR 50 HRS.	EVERY YEAR OR 100 HRS.	EVERY 2 YEARS OR 200 HRS.
Engine Oil	CHECK	X					
	CHANGE		X				
Air Cleaner	CHECK	X					
	CHANGE			X (1)			
All Nuts & Bolts	Re-tighten If Necessary	X					
Spark Plug	CHECK-CLEAN				X		
	REPLACE						X
Cooling Fins	CHECK				X		
Spark Arrester	CLEAN					X	
Fuel Tank	CLEAN					X	
Fuel Filter	CHECK					X	
Idle Speed	CHECK-ADJUST					X (2)	
Valve Clearance	CHECK-ADJUST						X (2)
Fuel lines	CHECK	Every 2 years (replace if necessary) (2)					

(1) Service more frequently when used in **DUSTY** areas.

(2) These items should be serviced by your service dealer, unless you have the proper tools and are mechanically proficient. Refer to the HONDA Shop Manual for service procedures.

(3) For commercial use, log hours of operation to determine proper maintenance intervals.

STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (ENGINE)

Maintenance

Perform the scheduled maintenance procedures as defined by Table 8 and below:

DAILY

- Thoroughly remove dirt and oil from the engine and control area. Clean or replace the air cleaner elements as necessary. Check and retighten all fasteners as necessary. Check the gearbox for oil leaks. Repair or replace as needed.

WEEKLY

- Remove the fuel filter cap and clean the inside of the fuel tank.
- Remove or clean the filter at the bottom of the tank.
- Remove and clean the spark plug (Figure 23), then adjust the spark gap to 0.024 ~0.028 inch (0.6~0.7 mm). This unit has electronic ignition, which requires no adjustments.

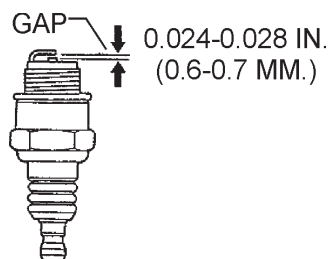


Figure 23. Spark Plug Gap

ENGINE OIL

1. Drain the engine oil when the oil is **warm** as shown in Figure 24.
2. Remove the oil drain bolt and sealing washer and allow the oil to drain into a suitable container.
3. Replace engine oil with recommended type oil as listed in Table 7. For engine oil capacity, see Table 2 (engine specifications). **DO NOT** overfill.
4. Install drain bolt with sealing washer and tighten securely.

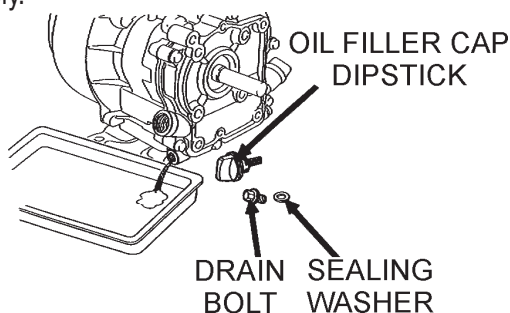


Figure 24. Engine Oil (Draining)

ENGINE AIR CLEANER

1. Remove the air cleaner cover and foam filter element as shown in Figure 25.
2. Tap the paper filter element (Figure 25) several times on a hard surface to remove dirt, or blow compressed air [not exceeding 30 psi (207 kPa, 2.1 kgf/cm²)] through the filter element from the air cleaner case side. **NEVER** brush off dirt. Brushing will force dirt into the fibers. Replace the paper filter element if it is excessively dirty.
3. Clean foam element in warm, soapy water or nonflammable solvent. Rinse and dry thoroughly. Dip the element in clean engine oil and completely squeeze out the excess oil from the element before installing.

**DANGER**

Explosive Hazard
DO NOT use gasoline as a cleaning solvent, because that would create a risk of fire or explosion.

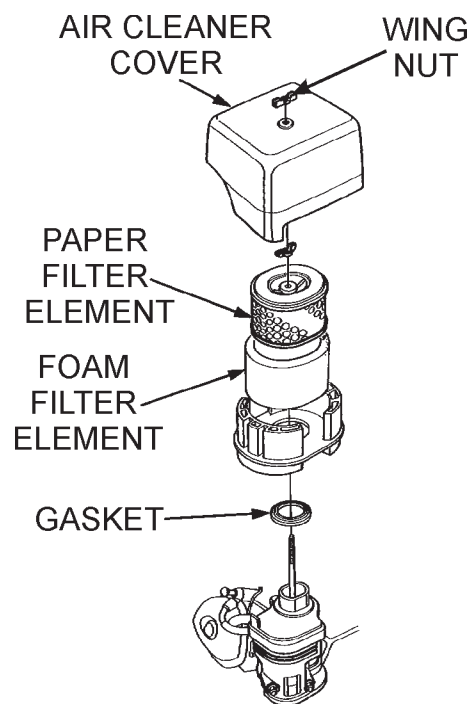


Figure 25. Engine Air Cleaner

STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (MIXER)

Ball Socket and Clamp Face Maintenance

1. If the towing vehicle is equipped with a ball socket, smear socket periodically with multi-purpose grease. This will keep the ball socket well lubricated.
2. Periodically oil **pivot points** and **clamp face** surfaces of coupler with SAE 30 WT. motor oil.
3. When parking or storing your mixer. Keep the coupler off the ground so dirt will not build up in the ball socket.

Drum Head Seals

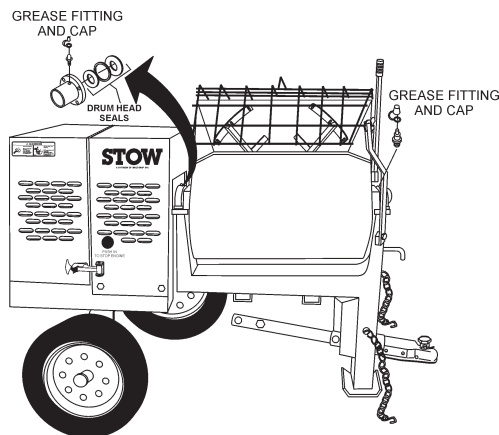


Figure 26. Grease Fittings (Drum Head Seals)

Drum Bearing Bracket Lubrication

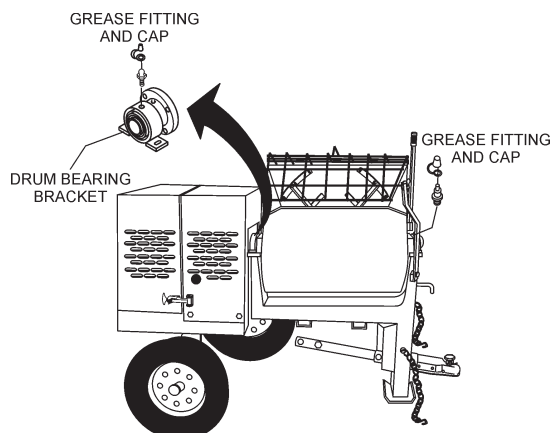


Figure 27. Grease Fittings (Dumping Mechanism)

CAUTION

Lubricating the Grease Fittings

Failure to lubricate the drum bearing grease fittings periodically will cause the dumping mechanism to stiffen, making the mixing drum hard to dump.

Countershaft Bearing Lubrication

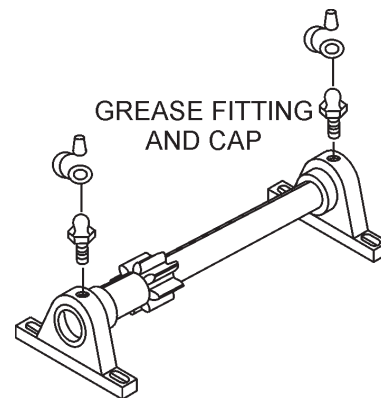


Figure 28. Grease Fittings (Countershaft)

Wheel Bearings

1. After every 3 months of operation, remove the hub dust cap and inspect the wheel bearings (Figure 29). Once a year, or when required, disassemble the wheel hubs remove the old grease and repack the bearings forcing grease between rollers, cone and cage with a good grade of high speed wheel bearing grease (**never** use grease heavier than 265 A.S.T.M. penetration ("No. 2."))

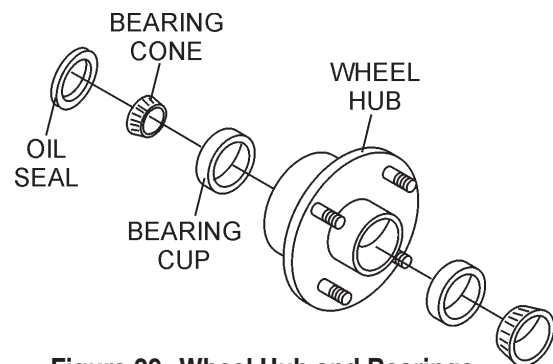


Figure 29. Wheel Hub and Bearings

STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (MIXER)

- Fill the wheel hub (Figure 28) with grease to the inside diameter of the outer races and also fill the hub grease cap. Reassemble the hub and mount the wheel. Then tighten the adjusting nut, at the same time turn the wheel in both directions, until there is a slight bind to be sure all the bearing surfaces are in contact.

Then back-off the adjusting nut 1/6 to 1/4 turn or to the nearest locking hole or sufficiently to allow the wheel to rotate freely within limits of .001" to .010" end play. Lock the nut at this position. Install the cotter pin and dust cap, and tighten all hardware.

MAIN GEAR AND DRIVE PINION ALIGNMENT

- Disconnect the spark plug wire** (gasoline engines). If mixer is equipped with an electric motor **remove power cord from AC power receptacle**. In addition make sure the clutch engagement lever is **dis-engaged** to relieve V-belt tension.
- The countershaft and drive pinion are mounted on a slotted base. To align drive pinion with main gear, loosen the pillow block mounting bolts and move them until the necessary alignment has been made. Remember gears must be paralleled aligned not skewed.
- Using your hand, slightly move (rock) the drive pulley back and forth to determine the amount of backlash. Insert feeler gauge between gears to determine backlash distance. Backlash should range between 0.007- 0.012 inches (Figure 30).

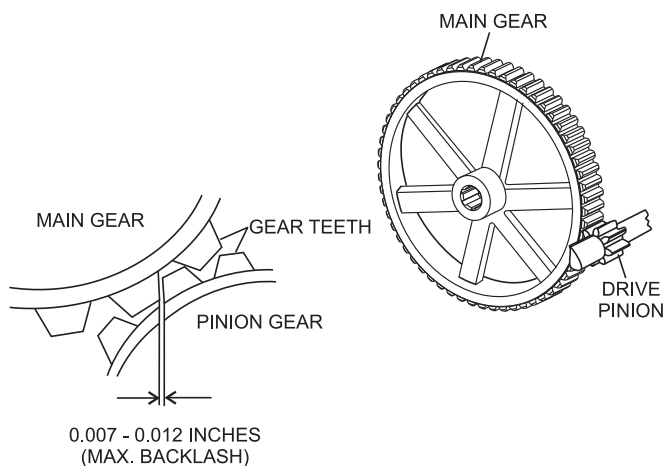


Figure 30. Drive Pinion and Main Gear (Backlash)

INSPECT TOOTH CONTACT BETWEEN MAIN GEAR AND DRIVE PINION

- Coat 3 or 4 teeth at 3 different positions on the main gear with yellow paint.
- Rotate the drive pulley in both directions.
- Inspect the tooth pattern.
- If gear teeth are not contacting properly (Figure 31), adjust pillow block to correct the problem.

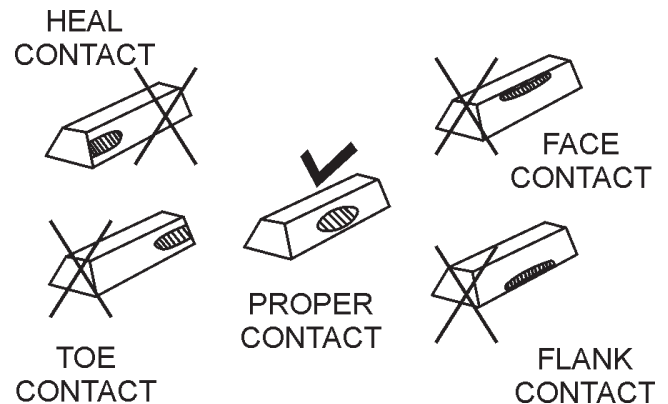


Figure 31. Gear Teeth Alignment

GEAR LUBRICATION

The surface of the pinion and main gear (Figure 32) should be very lightly greased.

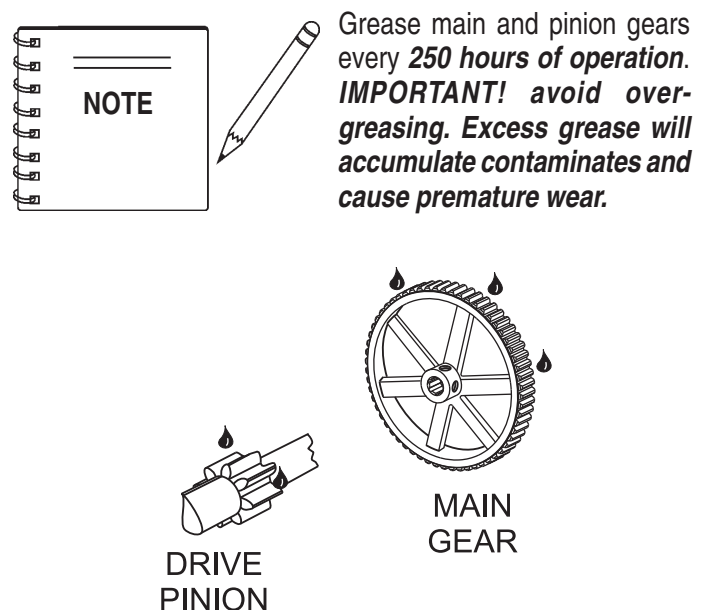


Figure 32. Pinion and Bull Gear Lubrication

STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (MIXER)

Grease Fittings (Zerk) Maintenance (Electric Motor)

1. There are two grease (Figure 33) fittings at each end of the electric motor that will require lubrication. Lubricate these fittings about **every 16 months**.
2. Use Poleyrex EM (Exxon Mobil) or equivalent lubricant. Clean grease fitting, apply grease gun to fitting (1/2 shot). Remember too much grease or injecting grease too quickly can cause premature bearing failure. Slowly apply the recommended amount of grease, taking a minute or so to apply.

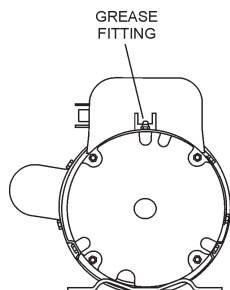


Figure 33. Grease Fittings Electric Motor

Tires Wear/Inflation

NOT

DO

WARNING

Eyesight Hazard

Tires/Wheels/Lug Nuts

WARNING

Damaged Wheels

DO NOT
DO NOT

TABLE 9. TIRE WEAR TROUBLESHOOTING

WEAR PATTERN	CAUSE	SOLUTION
	Center Wear	Over Inflation
	Edge Wear	Under Inflation
	Side Wear	Loss of chamber or overloading.
	Toe Wear	Incorrect toe-in
	Cupping	Out-of balance
	Flat Spots	Wheel lockup & tire skidding.
		Avoid sudden stops when possible and adjust brakes.

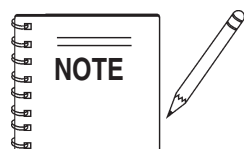
STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (MIXER)

Lug Nut Torque Requirements

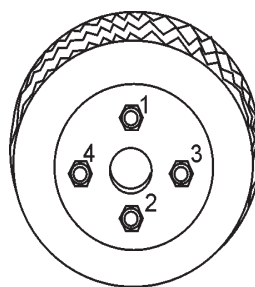
1. Start all wheel lug nuts by hand.
2. Torque all lug nuts in sequence. See Figure 34. **DO NOT** torque the wheel lug nuts all the way down. Tighten each lug nut in 3 separate passes as defined by Table 10.

Table 10. Tire Torque Requirements

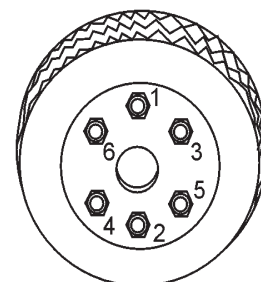
Wheel Size	First Pass FT-LBS	Second Pass FT-LBS	Third Pass FT-LBS
12"	20-25	35-40	50-65
13"	20-25	35-40	50-65
14"	20-25	50-60	90-120
15"	20-25	50-60	90-120
16"	20-25	50-60	90-120



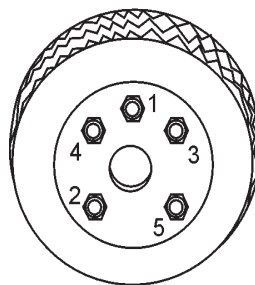
3. After first road use, retorque all lug nuts in sequence. Check all wheel lug nuts periodically.



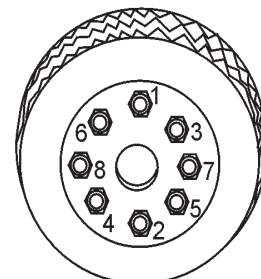
4-LUG NUTS



6-LUG NUTS



5-LUG NUTS



8-LUG NUTS

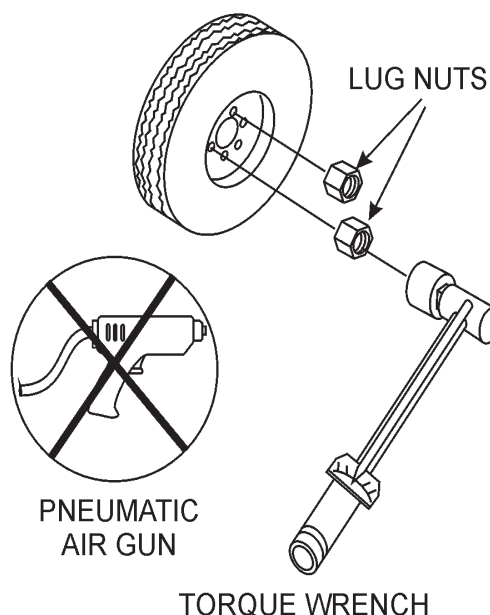


Figure 34. Wheel Lug Nuts Tightening Sequence

STOW MS-70 PLASTER/MORTAR MIXER — MAINTENANCE (MIXER)

Suspension

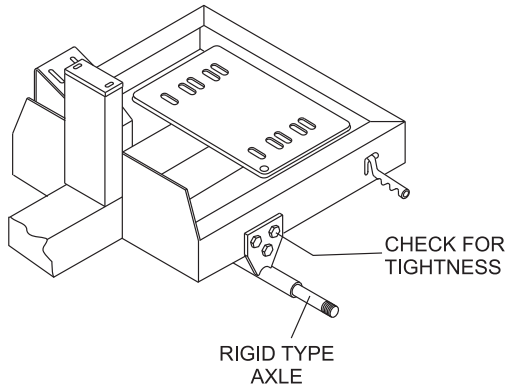


Figure 35. Axle Support Components

Mixer Cleaning

1. **ALWAYS disconnect the spark plug wire** (gasoline engines) before cleaning the inside of the drum. If mixer is equipped with an electric motor **remove power cord from AC power receptacle**. In addition make sure the clutch engagement lever is **dis-engaged**.
2. Make sure the rear section of the safety grate is connected to the mixing drum.
3. At the end of each day's operation, place mixer drum in an upright position and spray inside of tub immediately with water to prevent lumps of dried mortar or plaster from forming and contamination of future batches, **DO NOT** allow a buildup of materials to form on the blades or anywhere inside the drum.
4. Rotate mixer to dump position and remove debris.
5. **Thoroughly clean** the entire mixer, wheels, cabinet and frame.
6. **NEVER!** pour or spray water over the engine or electric motor (Figure 36).

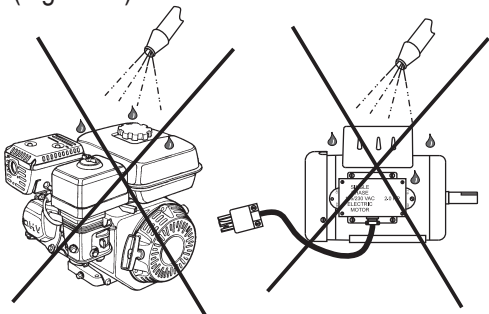


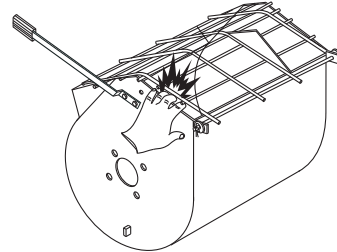
Figure 36. No Spraying of Water

WARNING

Keep Hands
Clear of Drum!

When rotating the mixing drum from the dump position to the upright position, **keep hands clear of safety grate**. The possibility exists of hands or fingers being crushed (Figure 37).

WARNING



CRUSH HAZARD AREA. KEEP HANDS
AND FINGERS CLEAR OF SAFETY
GRATE AT ALL TIMES.

Figure 37. Safety Grate (Crush Hazard)

7. When cleaning of the entire mixer is done, return mixing drum to an upright position.

Mixer Storage

-
-
-
-
-
-

STOW MS-70 PLASTER/MORTAR MIXER — TROUBLESHOOTING (ENGINE)

TABLE 11. ENGINE TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Poor starting	Inspect carburetor to see if fuel is reaching it?	Check fuel line
	No Fuel?	Add Fuel
	Water in fuel tank?	Flush or replace fuel tank.
	Fuel filter clogged?	Replace fuel filter
	Stuck carburetor?	Check float mechanism.
	Spark plug is red?	Spark plug is fouled. Check transistor ignition unit.
	Spark plug is blue-white?	Insufficient compression, injected air leaking. Carburetor jets are clogged (overflow).
	No spark present at tip of spark plug?	Transistor ignition unit broken, high voltage cord cracked or broken. Start/Stop switch broken. Replace spark plug if fouled.
	No oil?	Add oil as required.
	Oil pressure alarm lamp blinks upon starting?	Check Automatic shutdown circuit "oil sensor".
Insufficient power output "no compression"	Engine will not turn over?	Replace cylinder and piston and if necessary axle joint.
	Cylinder head connecting bolts loose?	Tighten cylinder head connecting bolts.
	Cylinder head gasket damaged?	Replace cylinder head gasket.
	Malfunction of valve seat?	Re-seat valves.
	Spark plug is loose?	Replace spark plug.
	Worn piston rings?	Replace piston rings.
Insufficient power output "compression"	Malfunction in air-cleaner system, air filter clogged?	Clean or replace air filter.
	Air leaking in from interface between carburetor and cylinder head?	Tighten bolts between carburetor and cylinder head. Replace cylinder head gasket.
	Malfunction in fuel system?	Clean or replace fuel filter. Clean or replace carburetor. Check carburetor float.

STOW MS-70 PLASTER/MORTAR MIXER —TROUBLESHOOTING (ENGINE)

TABLE 11. ENGINE TROUBLESHOOTING (CONTINUED)

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Insufficient power output "compression" and overheats	Malfunction in cooling fan?	Check or replace cooling fan.
	Air in-take filter clogged?	Clean or replace air in-take filter.
Burns to much fuel	Over accumulation of exhaust products?	Clean and check valves. Check muffler, replace if necessary.
	Wrong spark plug?	Replace spark plug with manufactures suggested type spark plug.
Exhaust color is continiously "WHITE"	Lubricating oil is wrong viscosity?	Replace lubricating oil with correct viscosity.
	Worn rings?	Replace rings
Exhaust color is continiously "BLACK"	Air cleanner clogged?	Clean or replace air cleaner.
	Choke valve has not been set to the correct position?	Adjust choke valve to the correct position.
	Carburetor defective, seal on carburetor broken?	Replace carburetor or seal.
	Poor carburetor adjustment "engine runs too rich?"	Adjust carburetor.

STOW MS-70 — TROUBLESHOOTING (MIXER/ELECTRIC MOTOR)

TABLE 12. MIXER TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Blades will not rotate.	Worn or defective V-belt?	Replace V-belt.
	Adjustment lever mis-aligned?	Check position of adjustment lever. Adjust if necessary.
Material leaking from drum ends.	Worn or defective paddle shaft seals?	Replace seals.
Drum difficult to discharge (tilt)	Defective or worn drum support brackets?	Apply grease to bracket or replace.
	Blades adjusted too tight.	Adjust blades until they almost touch side walls of drum.

TABLE 13. ELECTRIC MOTOR TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Blades will not rotate.	No voltage to motor?	Check power source.
	Defective extension cord?	Replace extension cord.
	Defective motor ON/OFF switch?	Replace switch.
	Defective motor windings?	Repair windings or replace windings.

STOW MS-70 MIXER — WIRING DIAGRAM (ELECTRIC MOTOR)

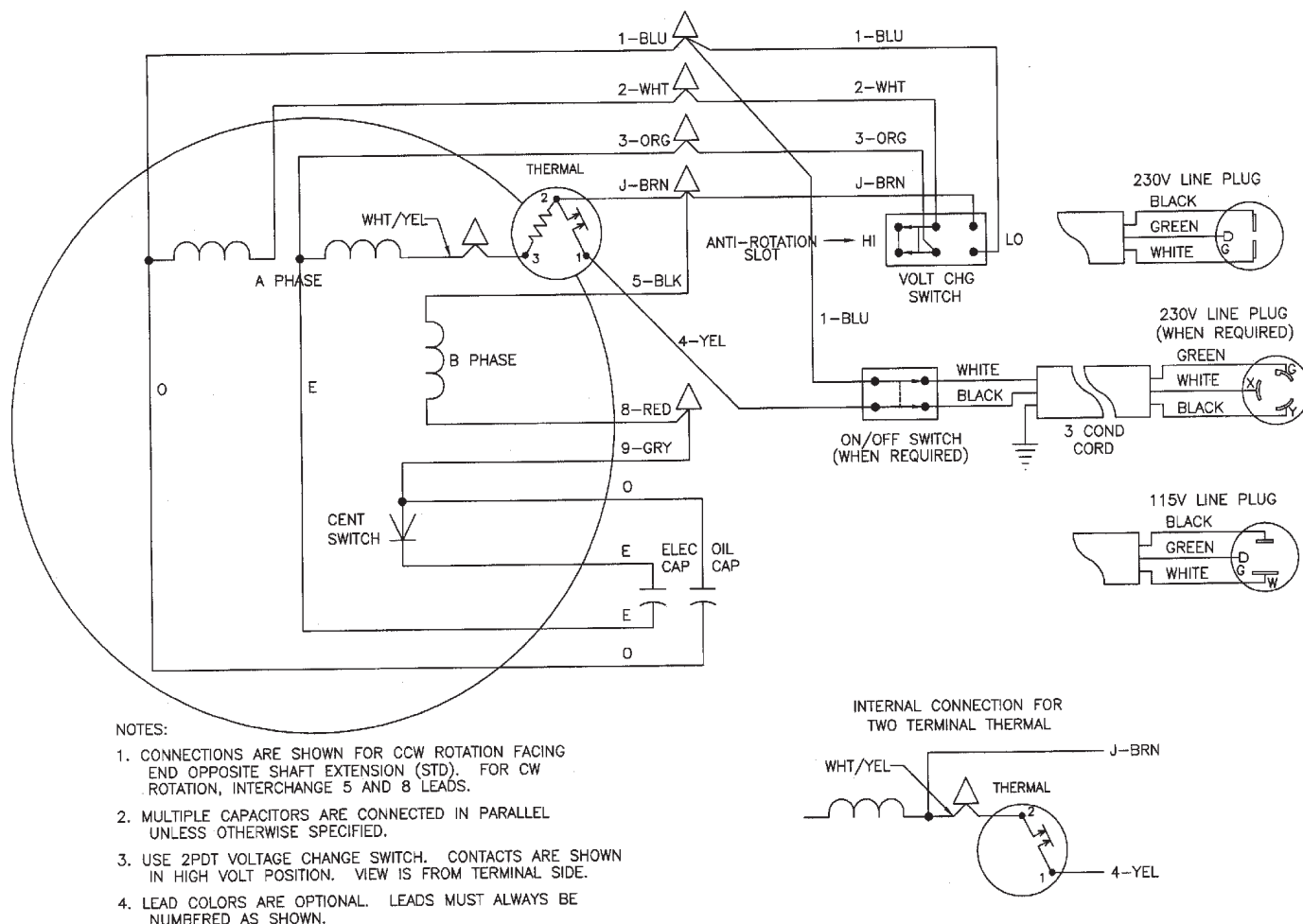


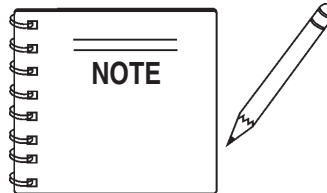
Figure 24. Electric Motor Wiring Diagram

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EXPLANATION OF CODE IN REMARKS COLUMN

How to read the marks and remarks used in this parts book.

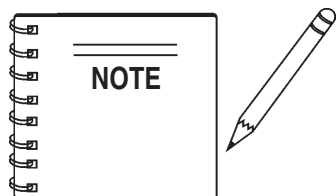
Items Found In the “Remarks” Column



The contents of this parts catalog are subject to change without notice.

Items Found In the “Items Number” Column

All parts with same symbol in the number column, *, #, +, %, or >, belong to the same assembly or kit.

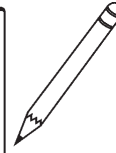
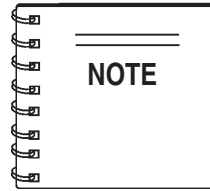


If more than one of the same reference number is listed, the last one listed indicates newest (or latest) part available.

STOW MS-70 MIXER — SUGGESTED SPARE PARTS

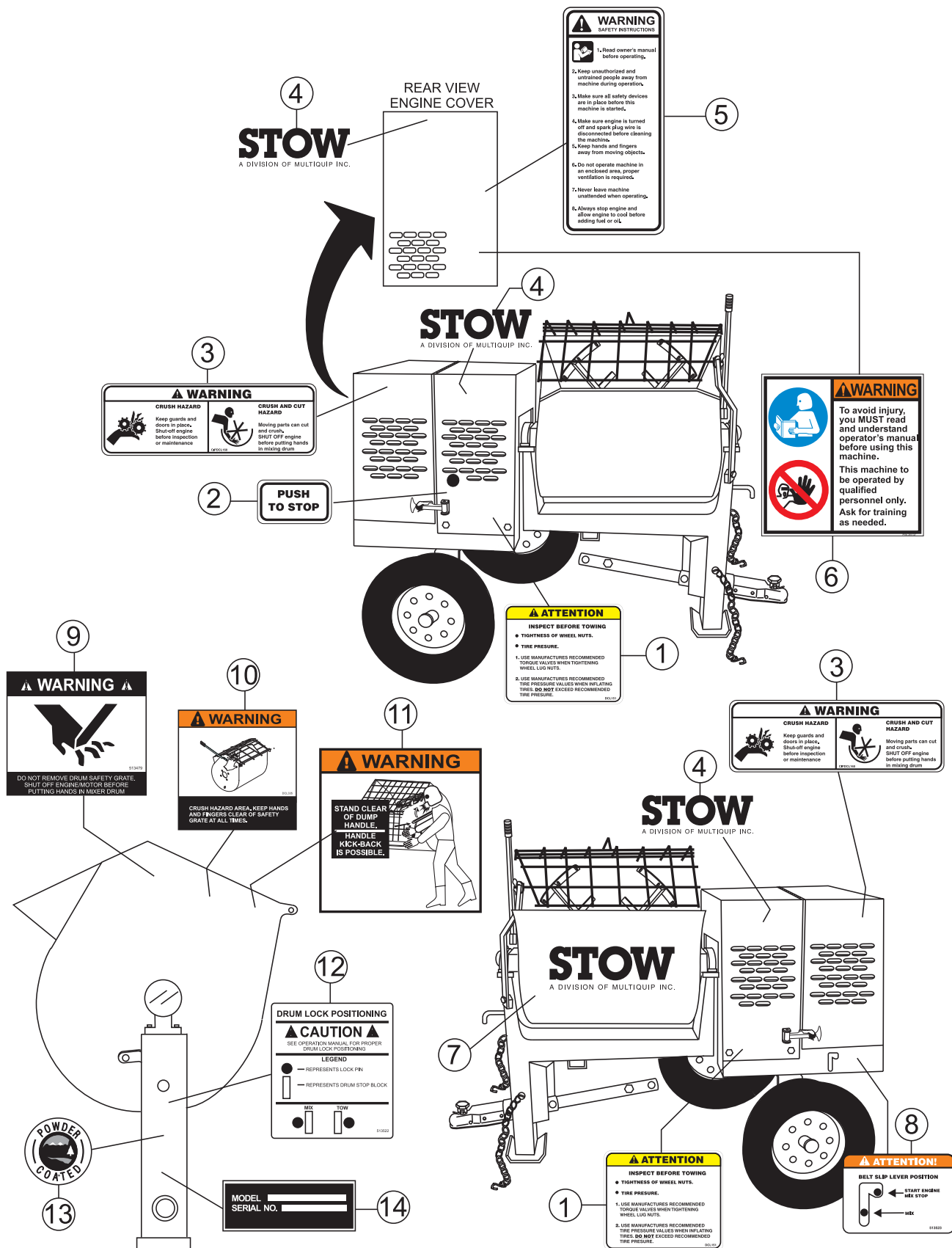
MS-70P/S PLASTER AND MORTAR MIXER 1 TO 3 UNITS WITH HONDA GX160K1HX2 AND GX240K1HA2 ENGINES

Qty....	P/N	Description
6	07055-034	V-BELT A34 HONDA ENGINE
6	491112	V-BELT A40 ELECTRIC MOTOR
2	EM914288	OIL SEAL, AXLE
4	EM903113	BEARING, CONE, AXLE
4	EM903112	BEARING, CUP, AXLE
2	20654-001	SEAL, PADDLE SHAFT (BLACK)
2	530029	RING, RETENTION
2	20104-002	SEAL, SHAFT URETHANE (YELLOW)
3	17210ZE2515	ELEMENT, AIR CLEANER, DUAL
3	9807956846	SPARK PLUG, BPR6ES, NGK
3	9807956855	SPARK PLUG, W20EPR-U, DENSO
1	28462ZE2W11	ROPE, RECOIL STARTER
1	17620ZH7023	CAP, FUEL TANK
2	EM203010	KIT, WIPER BLADES (STEEL DRUM)



Part numbers on this Suggested Spare Parts List may supercede/replace the P/N's shown in the test pages of this manual.

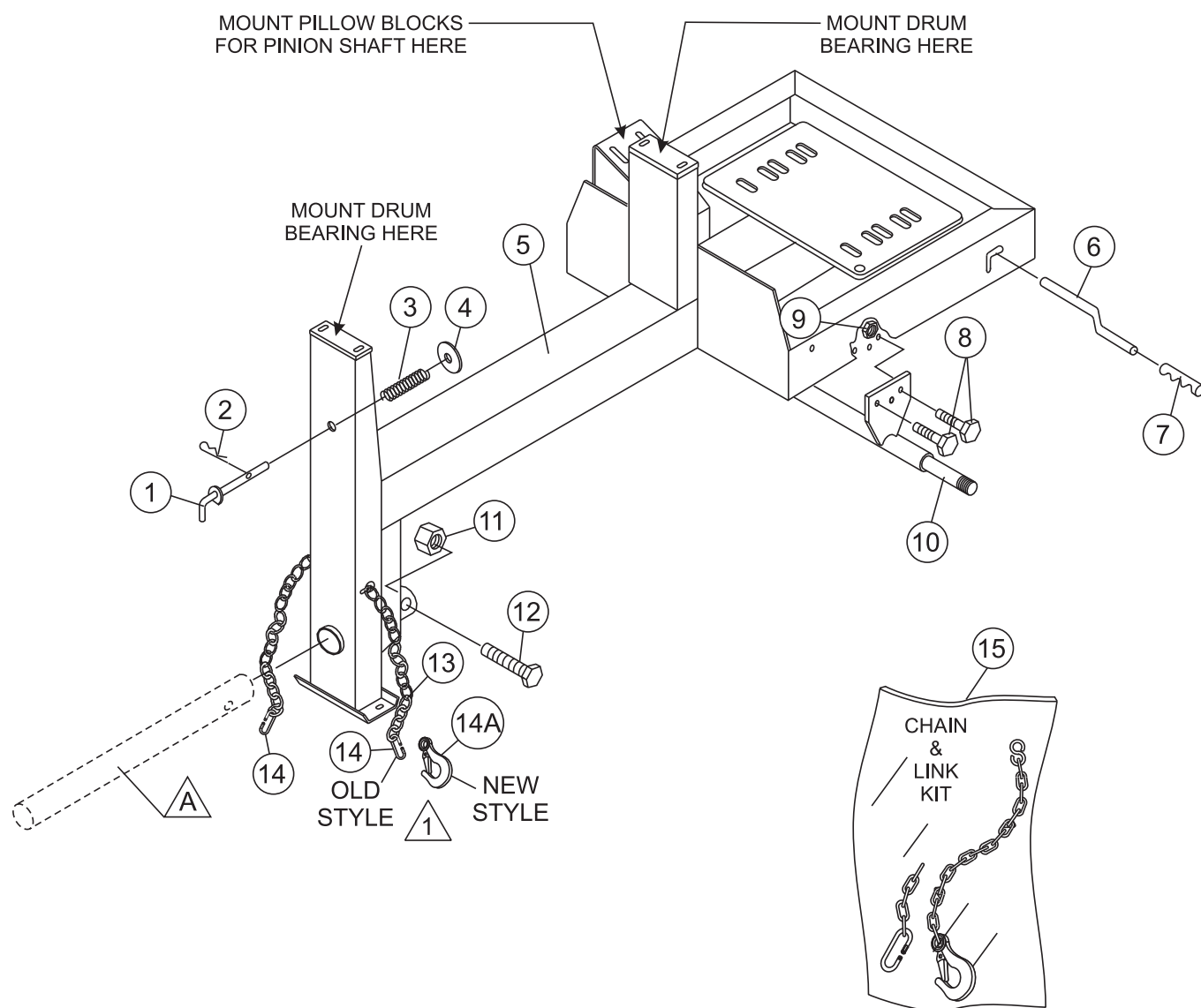
STOW MS-70 MIXER — NAMEPLATE AND DECALS



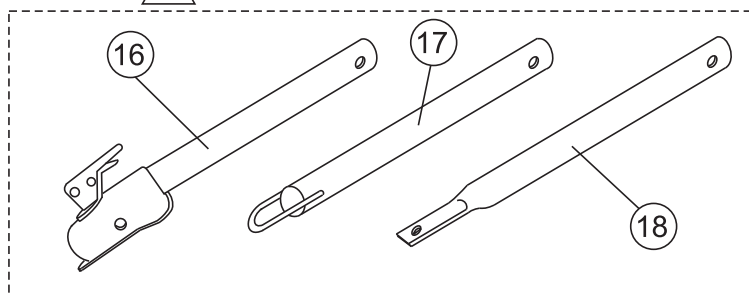
STOW MS-70 MIXER — NAMEPLATE AND DECALS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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STOW MS-70 MIXER — FRAME ASSY.



A OPTIONAL TOW BARS



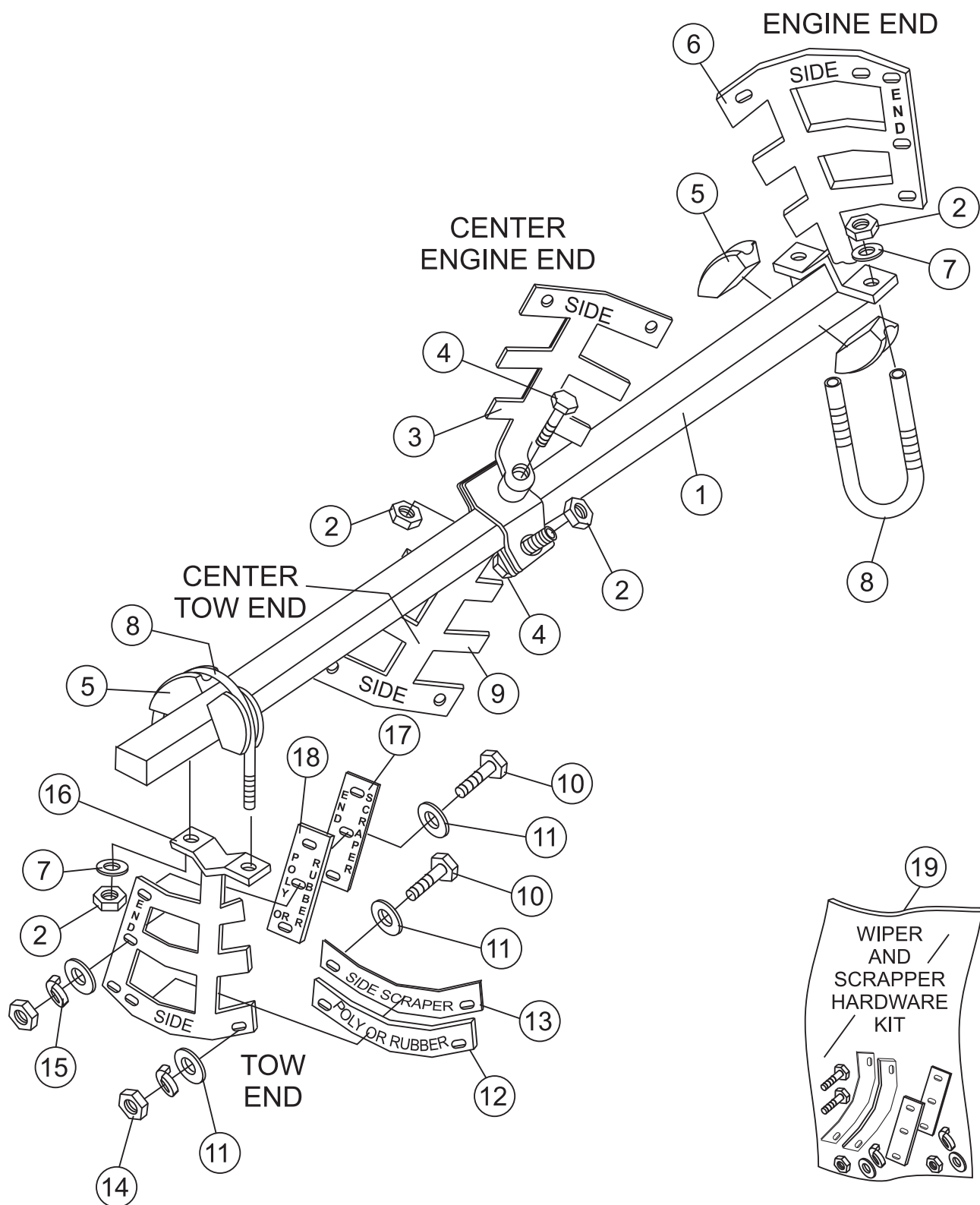
1

Quantity of item 14, Connector Link, changed from 2 to 1 in January 2006. Item 14A, Clevis Safety Hook, replaces discontinued Connector Link.

STOW MS-70 MIXER — FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
* 14*	01004	SAFETY CHAIN CONNECTOR LINK	1 2	BEFORE JANUARY 2006
14*	01004	CONNECTOR LINK	1	AFTER JANUARY 2006
14A*	516580	CLEVIS SAFETY HOOK	1	AFTER JANUARY 2006
15	13363KIT	CHAIN AND LINK KIT	1	INCLUDES ITEMS W/*
16	HBC-1	BALL HITCH 2-INCH	1	CONTACT UNIT SALES
17	HLC-1	LOOP HITCH	1	CONTACT UNIT SALES
18	HPC-1	PIN HITCH 1-INCH	1	CONTACT UNIT SALES

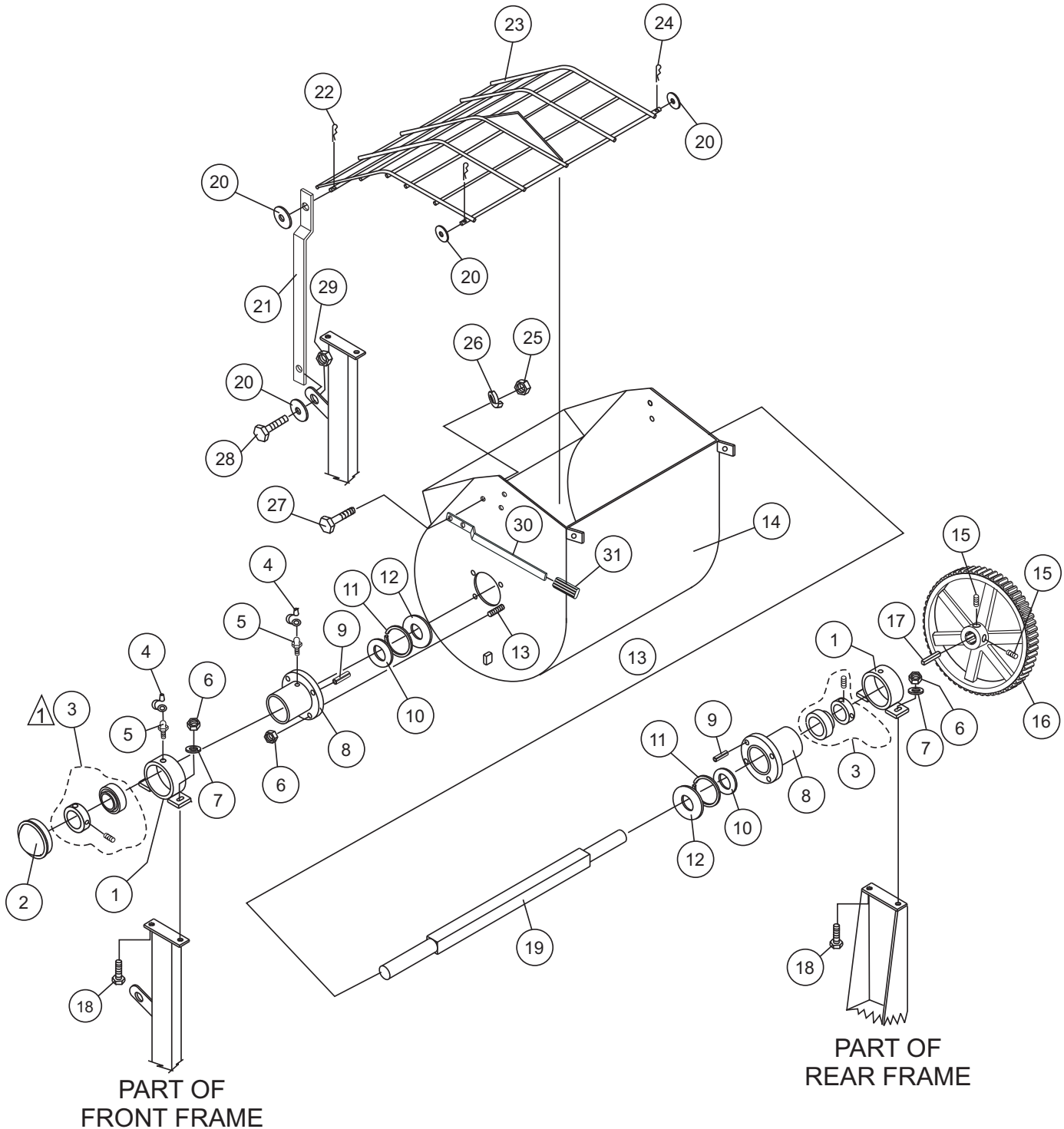
STOW MS-70 MIXER — PADDLE SHAFT ASSY.



STOW MS-70 MIXER — PADDLE SHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
*	492367	SCREW, HHC 5/16-18 X 1-3/4 G5	14	
11*	EM923023	WASHER, FLAT 5/16"	28	
12*	EM202929	BLADE, SIDE, RUBBER	4	
13*	EM202899	BLADE, SIDE, SCRAPPER	4	
14*	2105164	NUT, HEX 5/16" NC G5	14	
15*	EM923343	WASHER, LOCK 5/15"	14	
16	EM202899	PADDLE ARM, TOW END	1	
17*	EM202927	BLADE ,SCRAPPER END	2	
18*	EM202926	BLADE, RUBBER END	2	
19	EM203010	KIT, WIPERS, SCRAPPERS & HDWARE	1	INCLUDES ITEMS W/*

STOW MS-70 MIXER — STEEL DRUM ASSY.



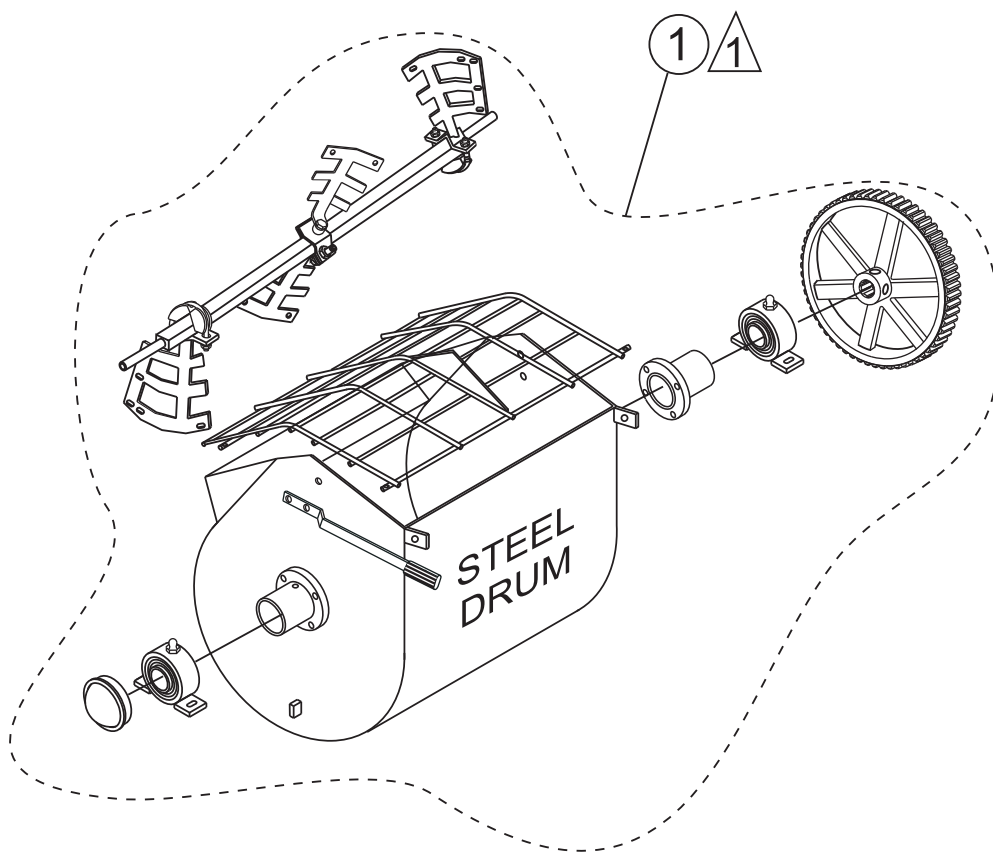
NOTES:

- 1 SET SCREWS AND BEARING COLLAR ARE INCLUDED WITH BEARING AND CANNOT BE PURCHASED SEPARATELY.

STOW MS-70 MIXER — STEEL DRUM ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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STOW MS-70 MIXER — DRUM & PADDLE SHAFT COMPLETE ASSY.



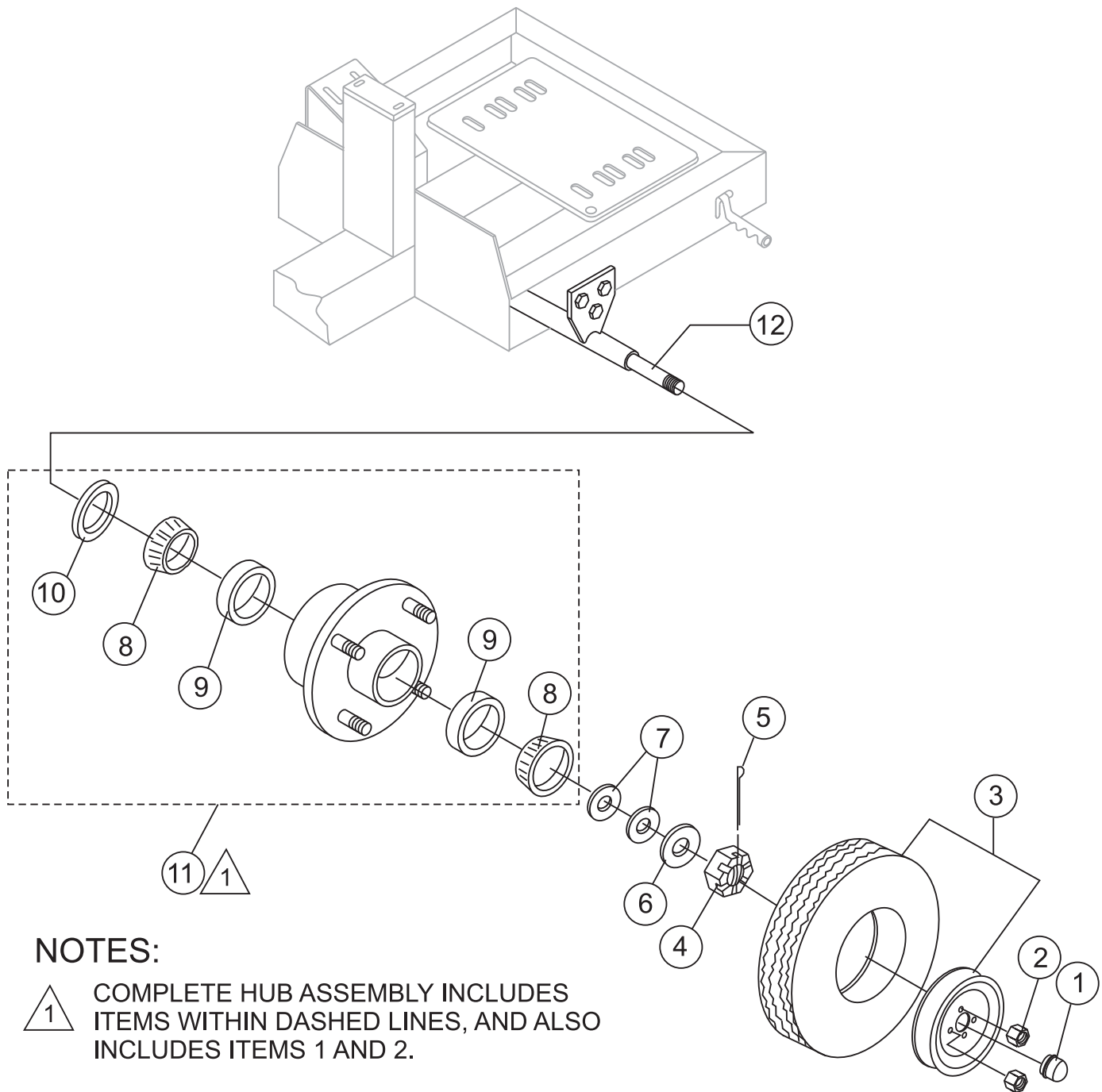
NOTES:

- △ 1 COMPLETE DRUM AND PADDLE
SHAFT ASSEMBLIES ARE INCLUDED
WITHIN DASHED LINES.

STOW MS-70 MIXER — DRUM & PADDLE SHAFT COMPLETE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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STOW MS-70 MIXER — AXLE ASSY.



NOTES:

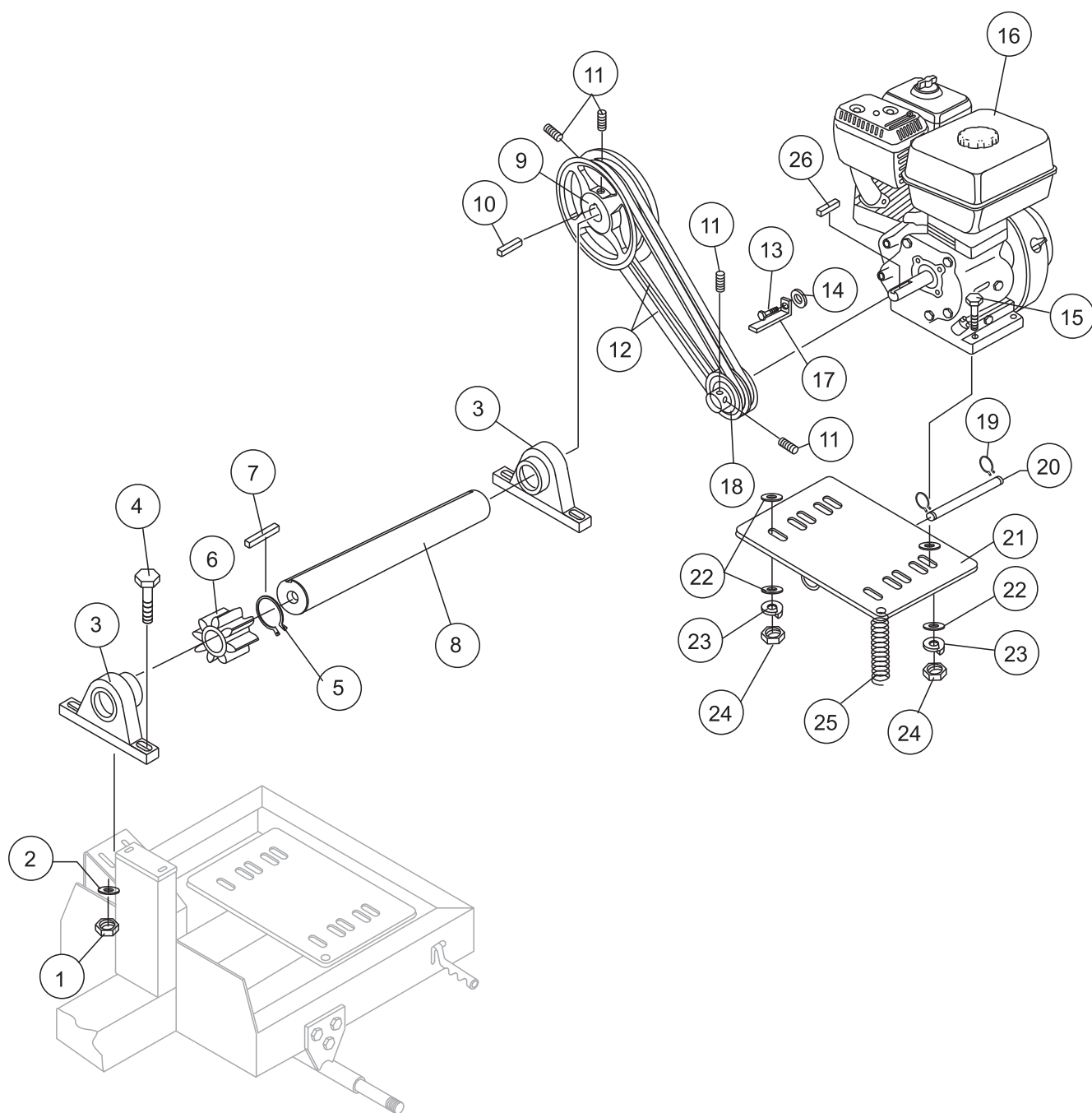


COMPLETE HUB ASSEMBLY INCLUDES
ITEMS WITHIN DASHED LINES, AND ALSO
INCLUDES ITEMS 1 AND 2.

STOW MS-70 MIXER — AXLE ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARK</u>
#	3469	DUST CAP	2	
2#	8115	LUG NUTS	8	
3	3005	TIRE AND RIM, CARLISE	2	
4	8164	CASTLE NUT 1"	2	
5	491688	COTTER PIN 1/8" X 1-1/2'	2	
6	EM511159	WASHER, FLAT, .087" THICKNESS	2	
7	EM501299	WASHER, FLAT, .135" THICKNESS	1	
8#	EM903113	BEARING CONE	4	
9#	EM903012	BEARING CUP	4	
10#	EM914288	OIL SEAL	2	
11	EM941306	HUB ASSY., 4-BOLT	2	INCLUDES ITEMS W/#
12	514802	AXLE, UNIVERSAL	1	

STOW MS-70 MIXER — ENGINE ASSY.

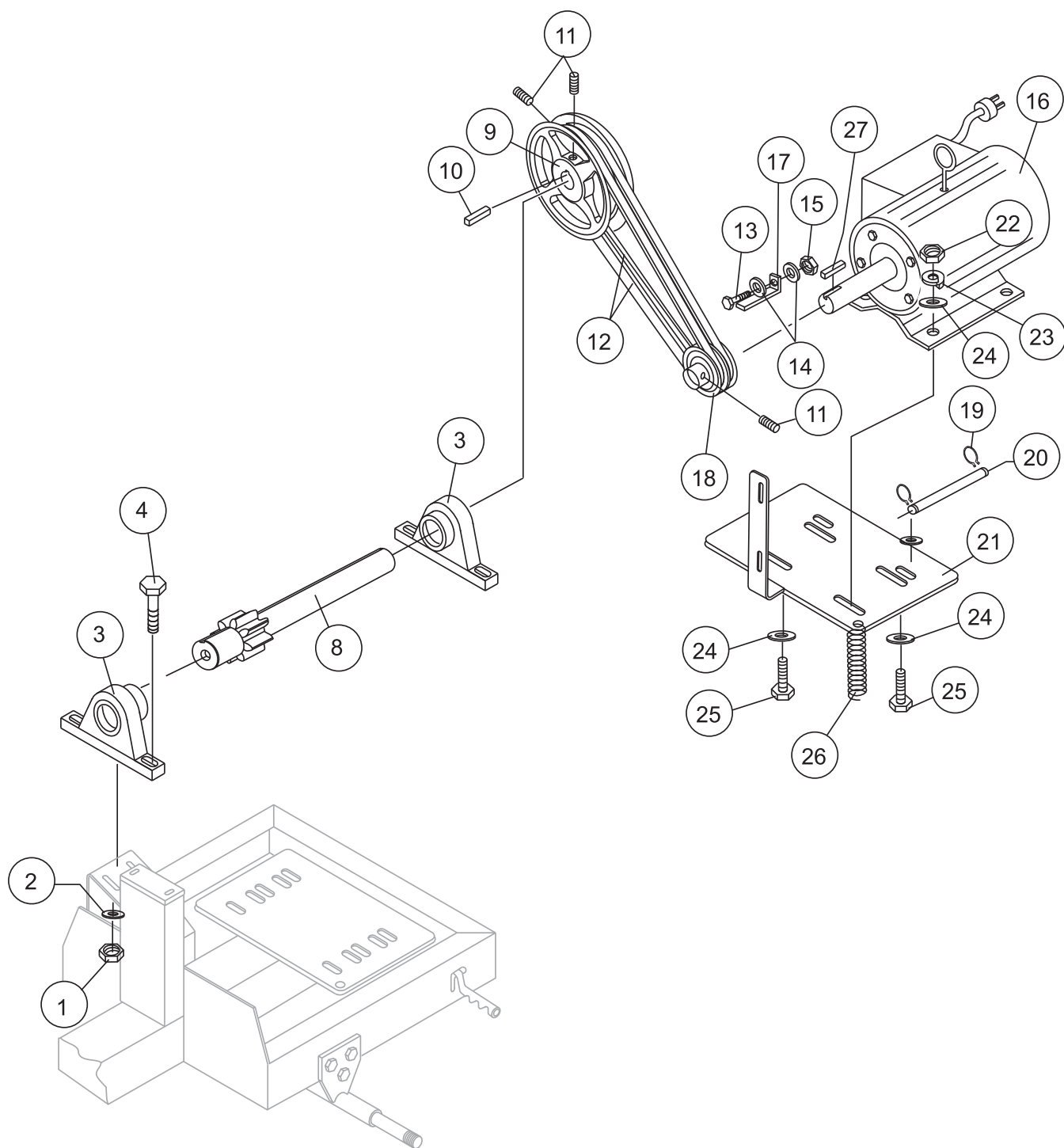


STOW MS-70 MIXER — ENGINE ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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STOW MS-70 MIXER — ELECTRIC MOTOR ASSY.

ELECTRIC MOTOR ASSY.

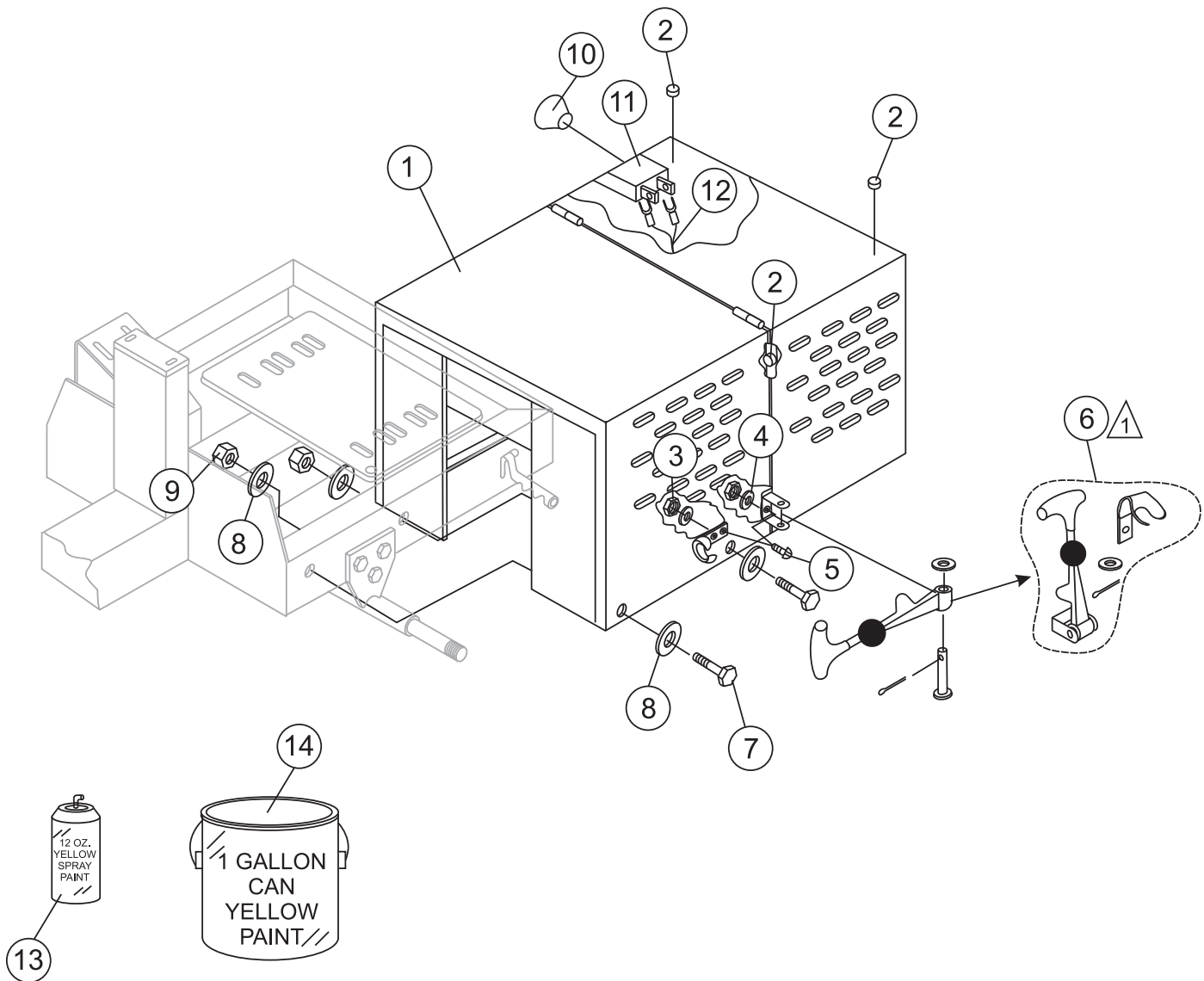


STOW MS-70 MIXER — ELECTRIC MOTOR ASSY.

ELECTRIC MOTOR ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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STOW MS-70 MIXER — CABINET ASSY.



NOTES:

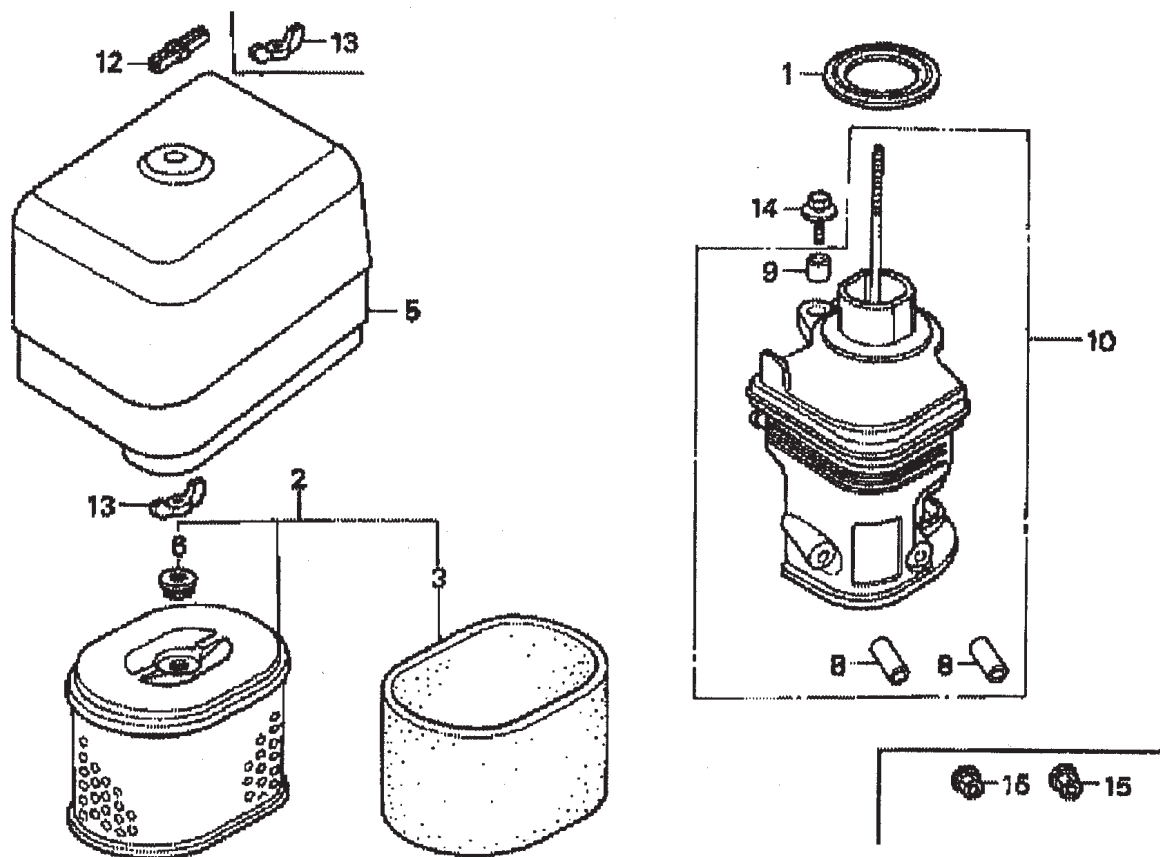


COMPLETE LATCH ASSEMBLY
INCLUDES ITEMS WITHIN DASHED
LINES. ITEMS CANNOT BE PURCHASED
SEPARATELY.

STOW MS-70 MIXER — CABINET ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>	
					*
2	490202	RUBBER PROTECTOR	4		
3	13287	LOCK NUT 8-32	6	REPLACEMENT PART ONLY	
4	2203	WASHER, FLAT #10	6	REPLACEMENT PART ONLY	
5	1307	SCREW RHMS 8-32 X 1/2"	6	REPLACEMENT PART ONLY	
6*	491010	LATCH ASSY., COMPLETE	2		
7	492375	BOLT 3/8" NC X 1" G5	4		
8	492598	WASHER, FLAT 3/8"	4		
9	492583	NUT 3/8" NC G5	4		
10	29174-001	KNOB, MUSHROOM	1		
11	29173-001	SWITCH, PUSH-PULL	1		
12	504135C	WIRE HARNESS	1		
13	RAL1003S	PAINT, SPRAY CAN 12 OZ., YELLOW	AR		
14	RAL1003G	PAINT, GALLON CAN, YELLOW	AR		

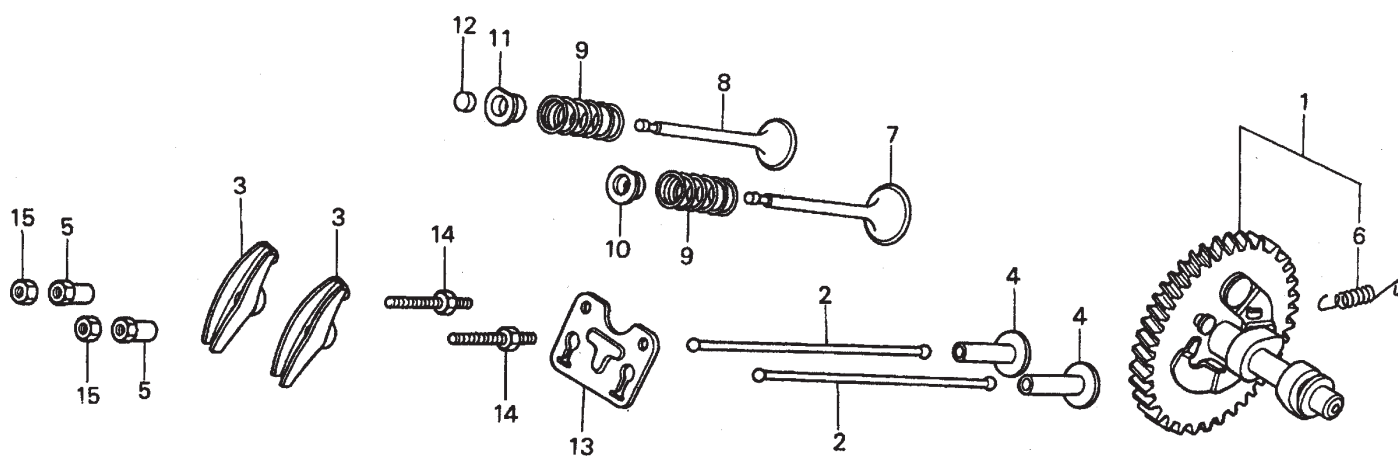
HONDA GX240K1HA2 ENGINE — AIR CLEANER ASSY.



HONDA GX240K1HA2 ENGINE — AIR CLEANER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>	
					*
2	17210ZE2515	ELEMENT, AIR CLEANER, DUAL	1		
3 *	17218ZE2505	FILTER, OUTER	1		
5	17231ZH9820	COVER, AIR CLEANER	1		
6	17232891000	GROMMET, AIR CLEANER	1		
8 #	17238ZE2310	COLLAR, AIR CLEANER	2		
9 #	17239ZE1000	COLLAR B, AIR CLEANER	1		
10	17410ZE2020	ELBOW COMP., AIR CLEANER	1	INCLUDES ITEM W/#	
12	0037806000	WINGNUT 6MM	1		
13	90325044000	WINGNUT, TOOL BOX SETTING	2		
14	90009ZE2003	BOLT- WASHER 6 X 22	1		
15	9405006000	NUT, FLANGE 6MM	2		

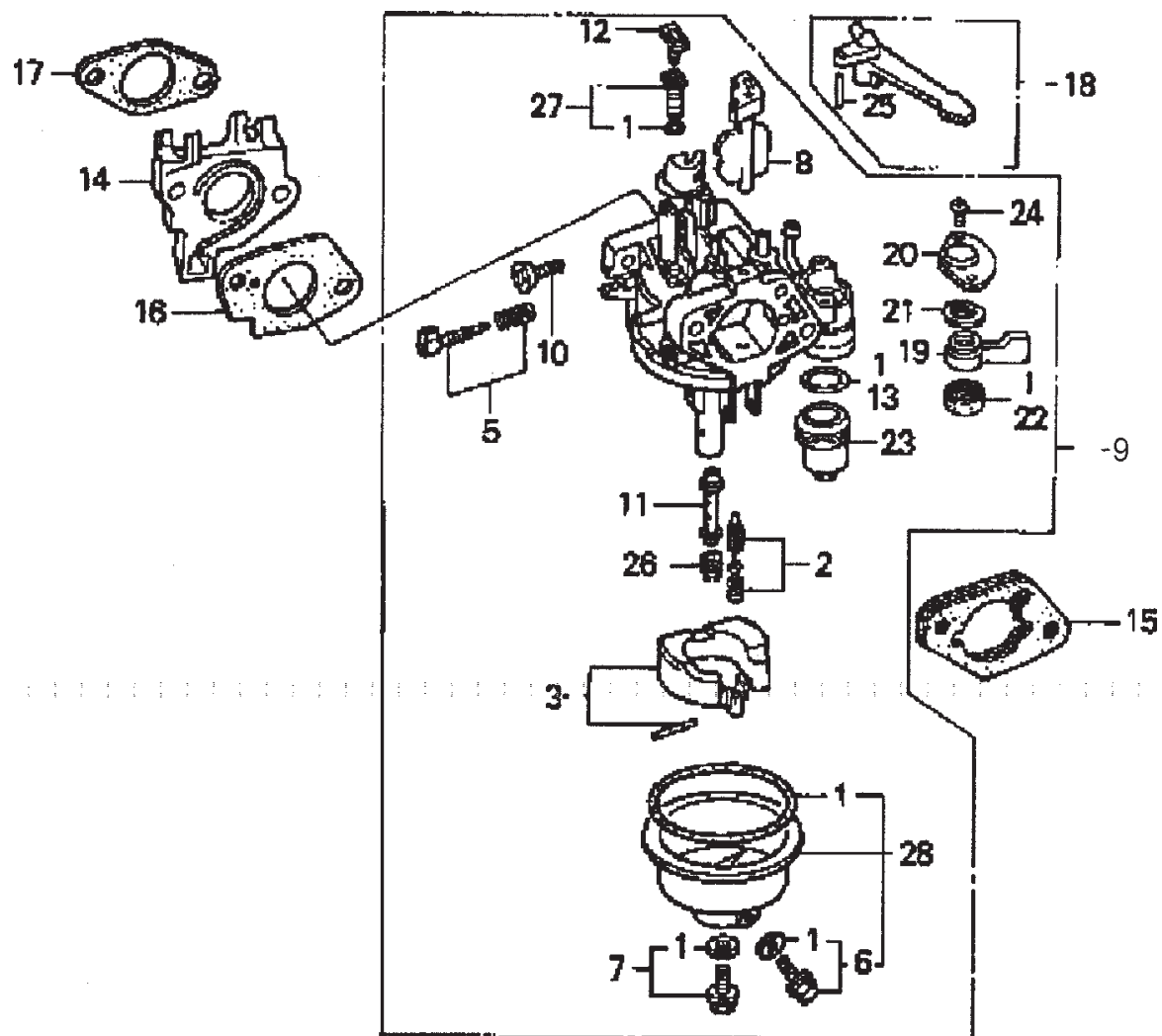
HONDA GX240K1HA2 ENGINE — CAMSHAFT ASSY.



HONDA GX240K1HA2 ENGINE — CAMSHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
				*
1	14100ZE2306	CAMSHAFT	1	
2	14410ZE2013	ROD PUSH	2	
3	14431ZE2010	ARM VALVE ROCKER	2	
4	14441ZE2000	LIFTER VALVE	2	
5	14451ZE1013	PIVOT ROCKER ARM	2	
6*	14568ZE1000	SPRING, WEIGHT RETURN	1	
7	14711ZE2000	VALVE, IN.	1	
8	14721ZE2000	VALVE, EX.	1	
9	14751ZE2003	SPRING, VALVE	2	
10	14771ZE2000	RETAINER, IN. VALVE SPRING	1	
11	14773ZE2000	RETAINER, EX. VALVE SPRING	1	
12	14781ZE2000	ROTATOR, VALVE	1	
13	14791ZE2010	PLATE, PUSH ROD GUIDE	1	
14	90012ZE0010	BOLT, PIVOT 8MM	2	
15	90206ZE1000	NUT, PIVOT ADJ.	2	

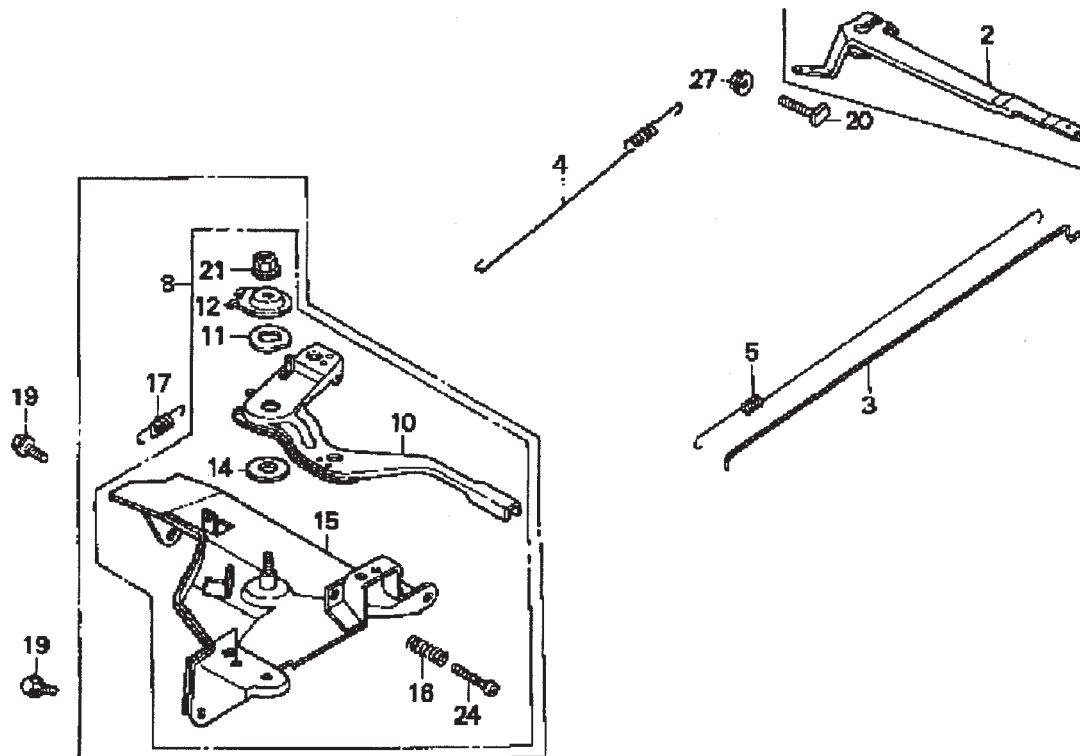
HONDA GX240K1HA2 ENGINE — CARBURETOR ASSY.



HONDA GX240K1HA2 ENGINE — CARBURETOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
*+	16010ZE2812	GASKET SET	1	
2*	16011ZA0931	VALVE SET, FLOAT	1	
3*	16013ZA0931	FLOAT SET	1	
5*	16016ZHW01	SCREW SET	1	
6*+	16024ZE1811	SCREW SET, DRAIN	1	
7*+	16028ZE0005	SCREW SET B	1	
8*	16028ZE2005	CHOKE SET	1	
9*	16100ZE2W71	CARBURETOR ASSY.....	1 INCLUDES ITEMS W/*
10*	16124ZE0005	SCREW, THROTTLE STOP	1	
11*	16166ZE2W70	NOZZLE, MAIN	1	
12*	16075GHBB00	COLLAR, SET	1	
13*	16075GHBB00	O-RING	1	
14	16211ZE2000	INSULATOR, CARB.	1	
15	16220ZA0702	SPACER COMP., CARB.	1	
16	16221ZA0800	GASKET, CARBURETOR	1	
17	16223ZA0800	GASKET, INSULATOR	1	
18	16610ZE1000	LEVER COMP., CHOKE, STD.	1	
19*	16953ZE1812	LEVER, VALVE	1	
20*	16954ZE1811	PLATE, LEVER SETTING	1	
21*	16956ZE1811	SPRING, VALVE LEVER	1	
22*	16957ZE1812	GASKET, VALVE	1	
23*	16967ZE0811	CUP, FUEL STRAINER	1	
24*	93500030060H	SCREW, PAN 3 X 6	2	
25	9430520122	PIN, SPRING 2 X 12	1	
26*	99101ZH70820	JET, MAIN #82, OPTIONAL	1	
26*	99101ZH70850	JET, MAIN #85, OPTIONAL	1	
26*	99101ZH80880	JET, MAIN #88	1	
27*	99204ZE20400	JET SET, PILOT #40	1	
28*	16015ZE8005	CHAMBER SET, FLOAT	1 INCLUDES ITEMS W/+

HONDA GX240K1HA2 ENGINE — CONTROL ASSY.



HONDA GX240K1HA2 ENGINE — CONTROL ASSY.

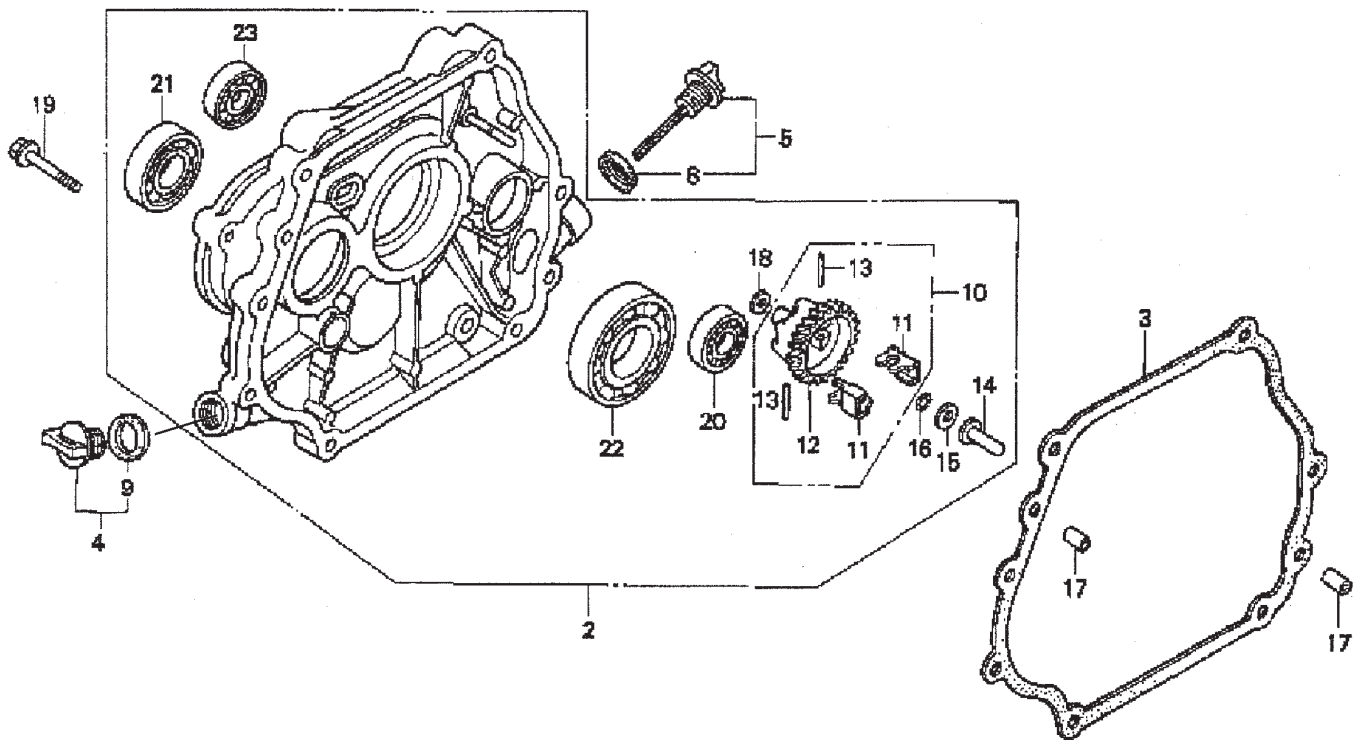
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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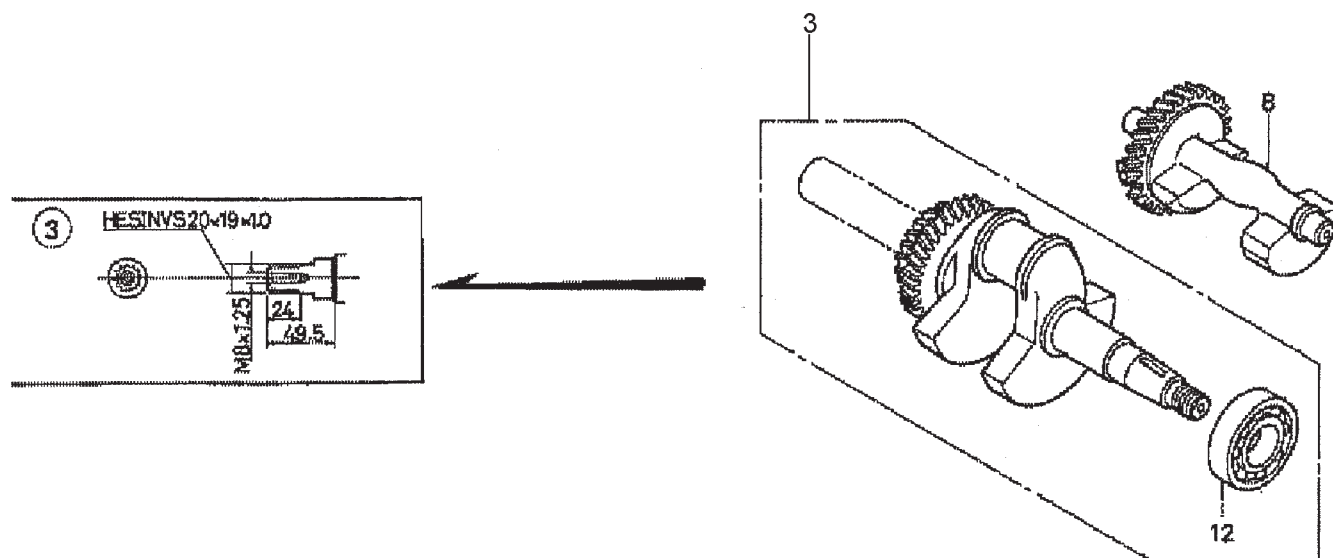
HONDA GX240K1HA2 ENGINE — CRANKCASE COVER ASSY.



HONDA GX240K1HA2 ENGINE — CRANKCASE COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>	
					*
					#
					%
8%	15625ZE1003	GASKET, OIL FILLER CAP	1		
9#					
					+
11* +	16511ZE2000	WEIGHT, GOVERNOR	2		
12* +	16512ZE2811	HOLDER, GOVERNOR WEIGHT	1		
13* +	16513ZE2000	PIN, GOVERNOR WEIGHT	2		
14*					
*					
*					
*					
*					
*					
*					
*					

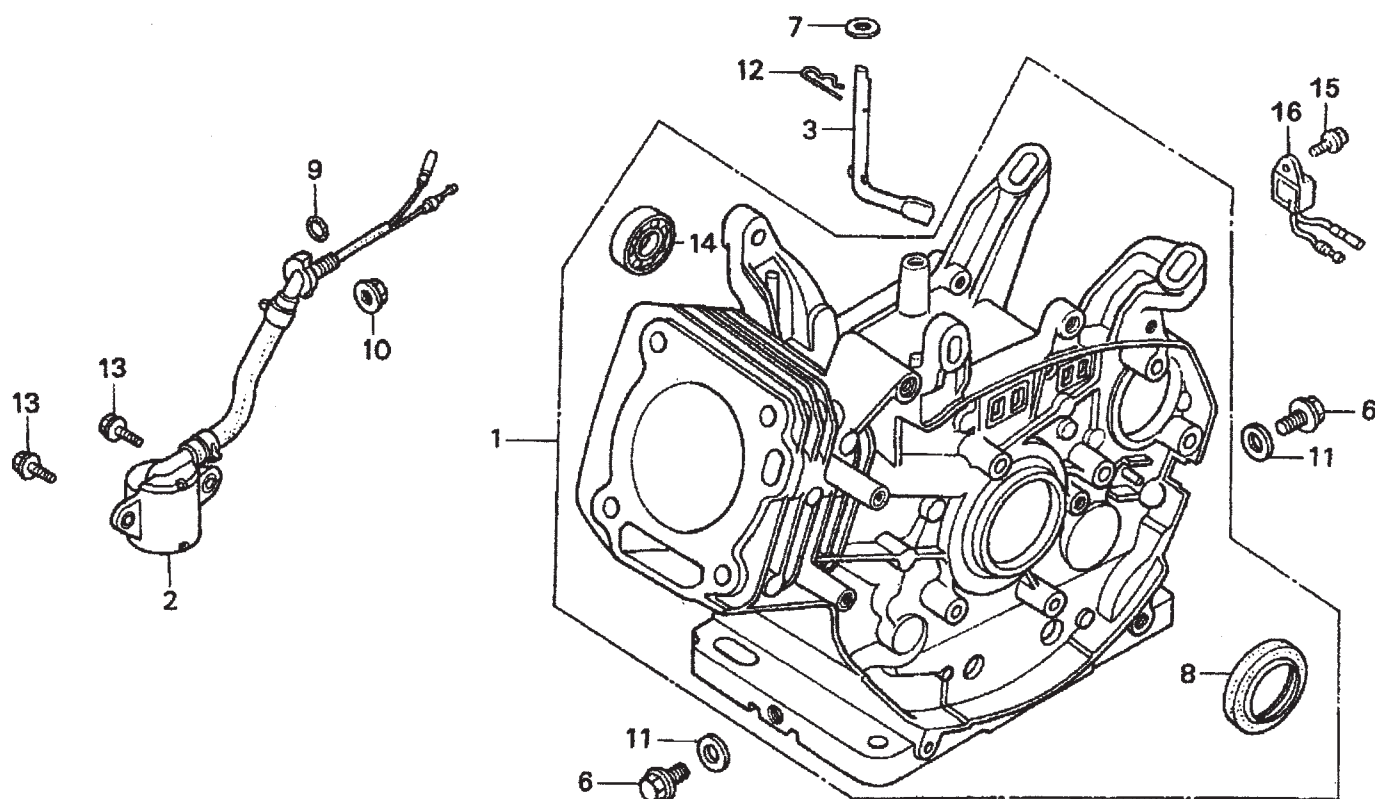
HONDA GX240K1HA2ENGINE — CRANKSHAFT ASSY.



HONDA GX240K1HA2ENGINE — CRANKSHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>	
					*
*					

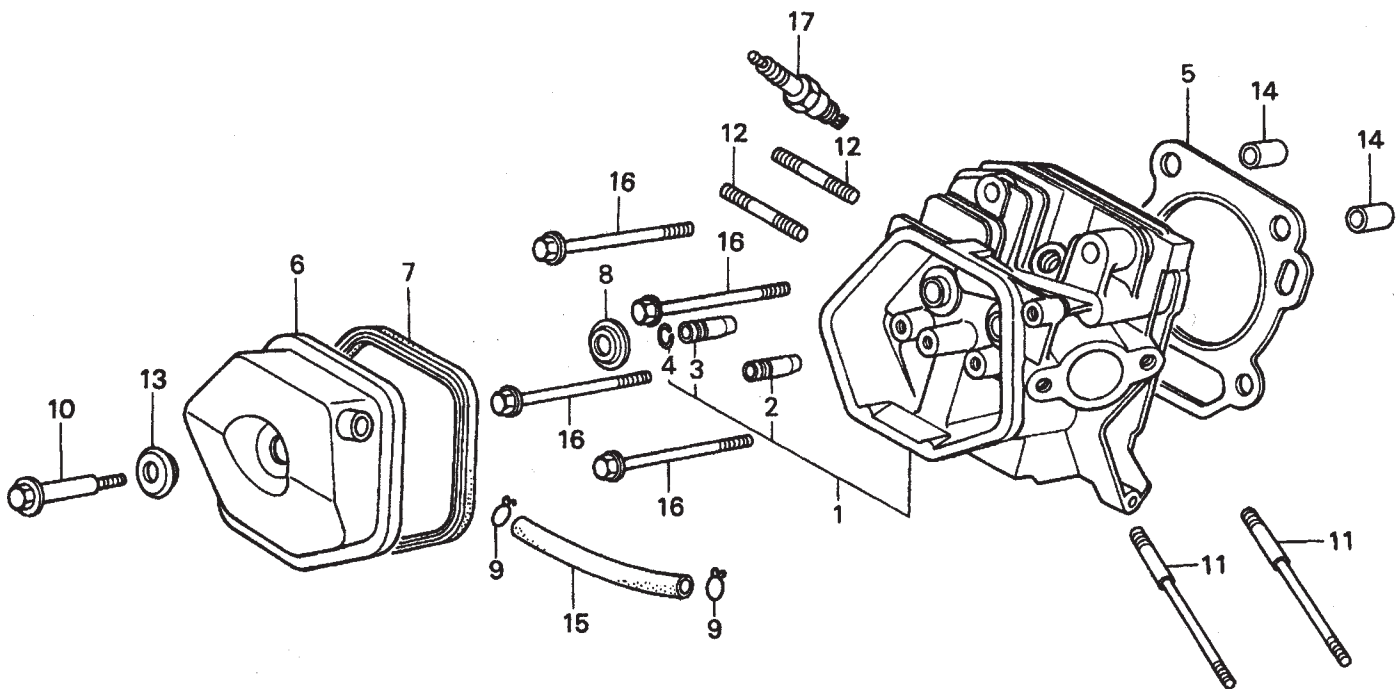
HONDA GX240K1HA2 ENGINE — CYLINDER BARREL ASSY.



HONDA GX240K1HA2 ENGINE — CYLINDER BARREL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
				*
2	15510ZE2043	SWITCH ASSY., OIL LEVEL	1	
3	16541ZE2010	SHAFT, GOVERNOR ARM	1	
6	90131896650	BOLT, DRAIN PLUG	2	
7	90446KE1000	WASHER 8.2 X17X0.8	1	
8*	91201890003	OIL SEAL 30X46X8	1	
9	91353671003	O-RING 14MM ARAI	1	
10	9405010000	NUT FLANGE 10MM	1	
11	031112230	WASHER, DRAIN PLUG 12MM	2	
12	9425110000	PIN, LOCK 10MM	1	
13	957010601200	BOLT, FLANGE 6X12	2	
14*	961006202000	BEARING, RADIAL BALL 6202	1	
15	90013883000	BOLT, FLANGE 6X12 CT200	1	
16	34150ZH7003	ALERT UNIT, OIL	1	

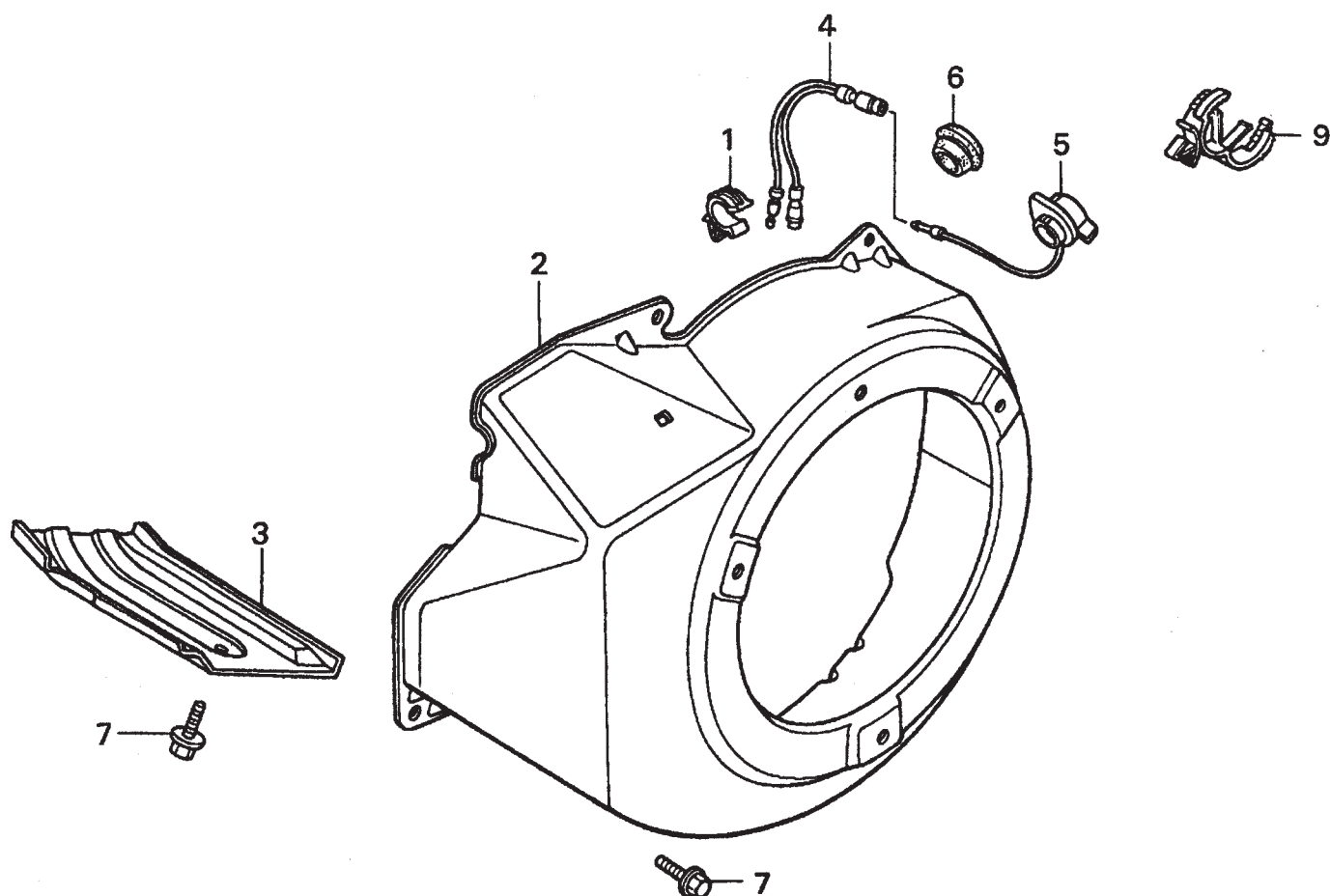
HONDA GX240K1HA2 ENGINE — CYLINDER HEAD ASSY.



HONDA GX240K1HA2 ENGINE — CYLINDER HEAD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
				*
2*	12204ZE2306	GUIDE, VALVE, OS, OPTIONAL	1	
3*	12205ZE2305	GUIDE, EX. VALVE, OS, OPTIONAL	1	
4*	12216ZE2300	CLIP, VALVE GUIDE	1	
5	12251ZE2800	GASKET, CYLINDER HEAD	1	
6	12310ZE2020	COVER COMP., HEAD	1	
7	12391ZE2020	GASKET, CYLINDER HEAD COVER	1	
8	14775ZE2010	SEAT, VALVE SPRING	1	
10	90014ZE2000	BOLT, HEAD COVER	1	
11	90042ZE2000	BOLT, STUD 8X123	2	
12	92900080320E	BOLT, STUD 8X47	2	
13	90441ZE2010	WASHER COMP., HEAD COVER	1	
14	9430112200	PIN A, DOWEL 12X20	2	
15	950051100130M	BULK HOSE, VACUUM 11X1000, 11X100	1	
16	957011008000	BOLT, FLANGE 10X80	4	
17	9807956846	SPARK PLUG, BPR6ES, NGK	1	
17	9807956855	SPARK PLUG, W20EPR-U, DENSO	1	

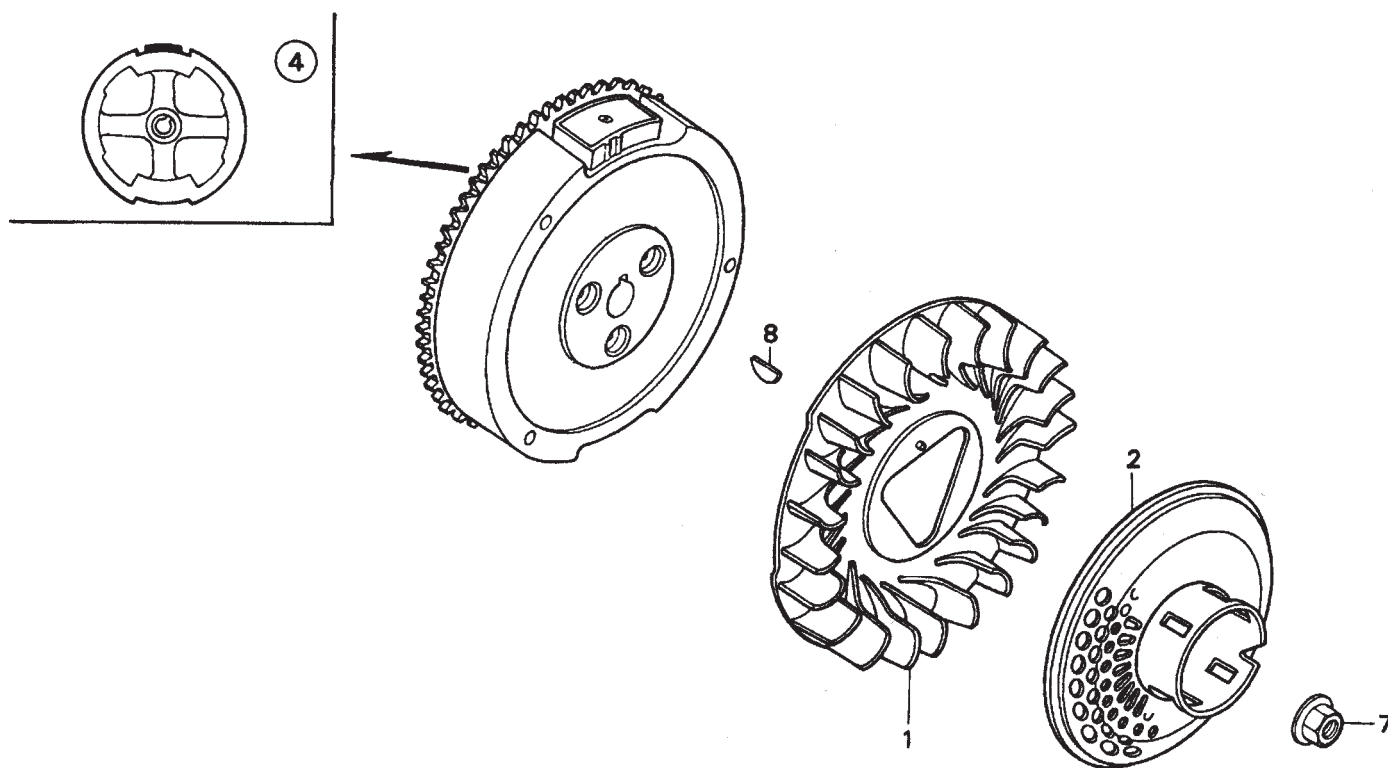
HONDA GX240K1HA2 ENGINE — FAN COVER ASSY.



HONDA GX240K1HA2 ENGINE — FAN COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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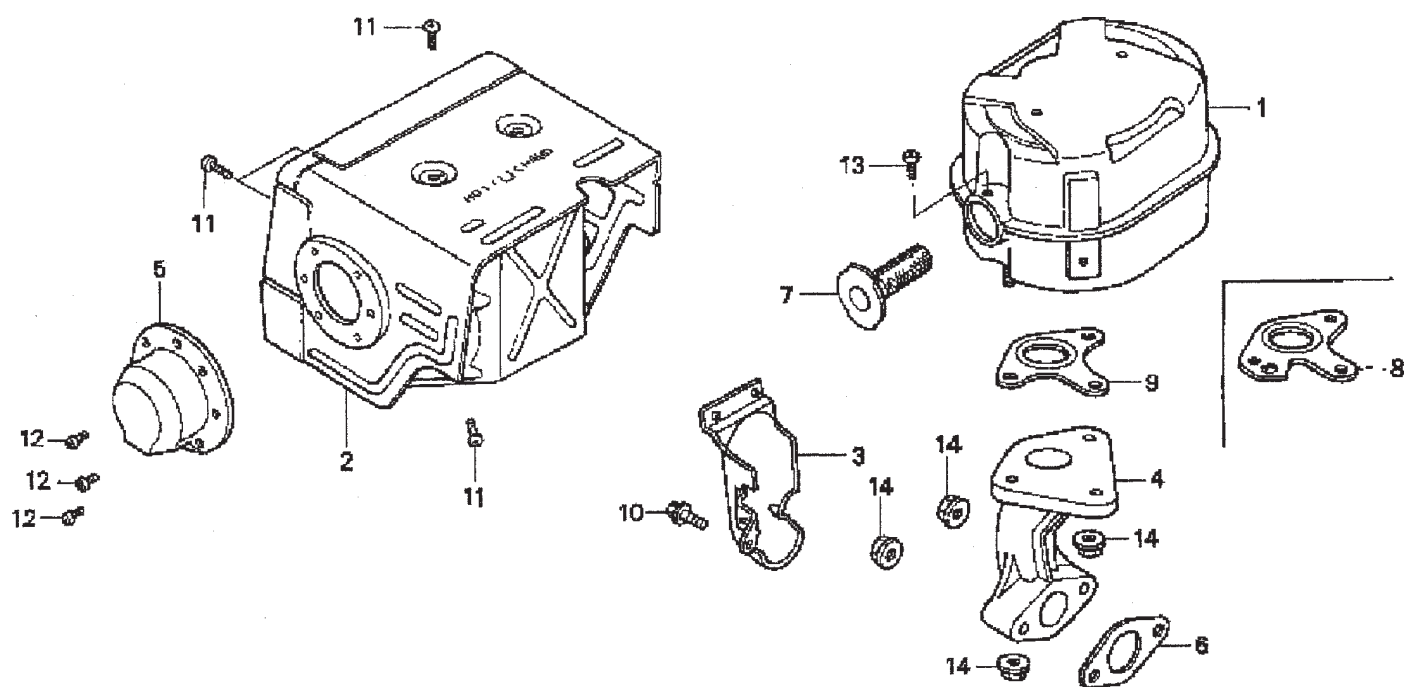
HONDA GX240K1HA2 ENGINE — FLYWHEEL ASSY.



HONDA GX240K1HA2 ENGINE — FLYWHEEL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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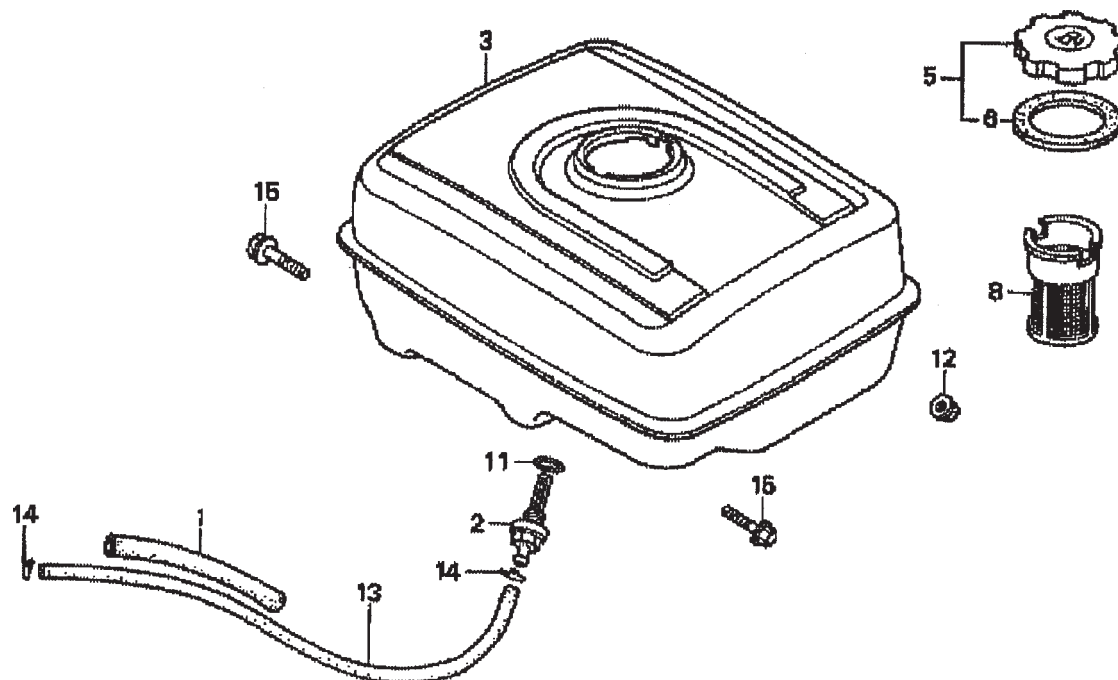
HONDA GX240K1HA2 ENGINE — MUFFLER ASSY.



HONDA GX240K1HA2 ENGINE — MUFFLER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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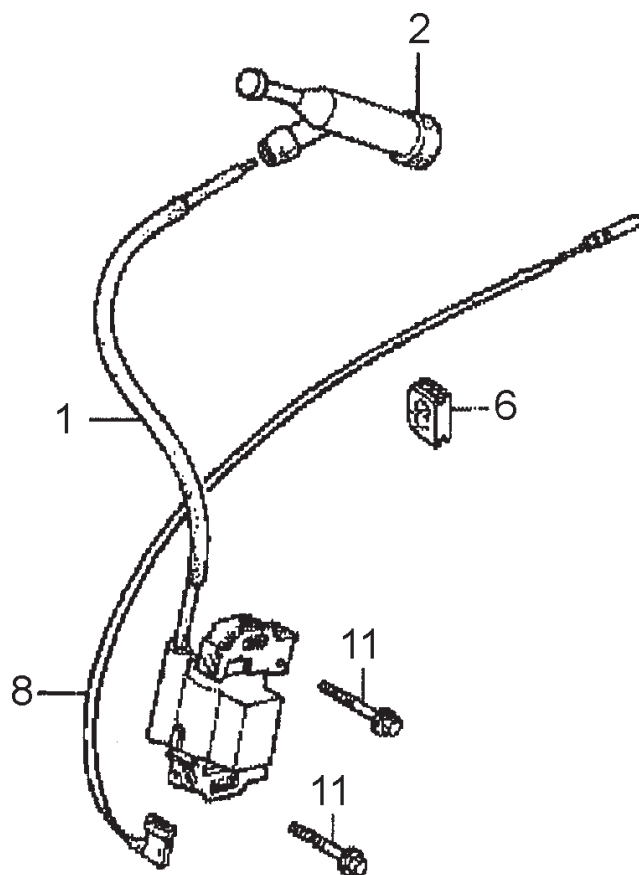
HONDA GX240K1HA2 ENGINE — FUEL TANK ASSY.



HONDA GX240K1HA2 ENGINE — FUEL TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
				*
6*	17631ZH7003	GASKET, FUEL FILLER CAP	1	
8	17672ZE2W01	FILTER, FUEL	1	
11	91353671003	O-RING 14MM, ARAI	1	
12	9405008000	NUT, FLANGE 8MM	2	
13	950014500360M	BULK HOSE, FUEL 4.5X3000, 4.5X222	1	
14	9500202080	CLIP, TUBE, B8	2	
15	957010802500	BOLT, FLANGE 8X25	2	

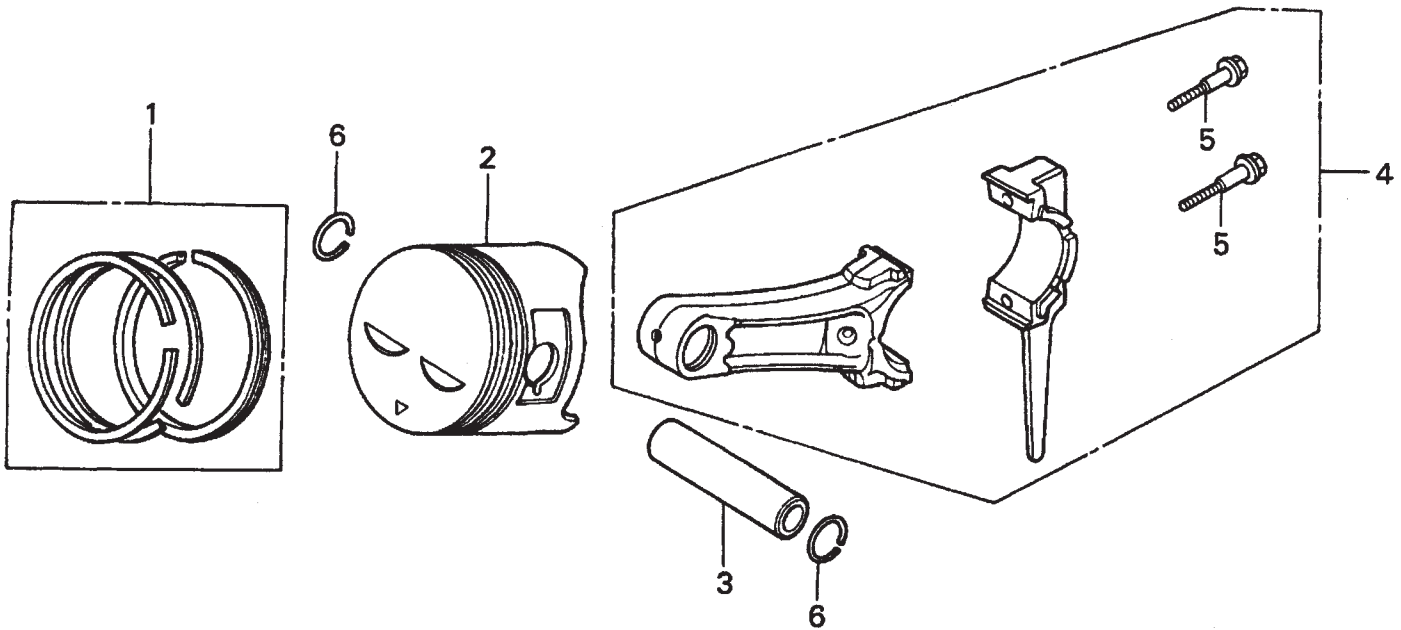
HONDA GX240K1HA2 ENGINE — IGNITION ASSY.



HONDA GX240K1HA2 ENGINE — IGNITION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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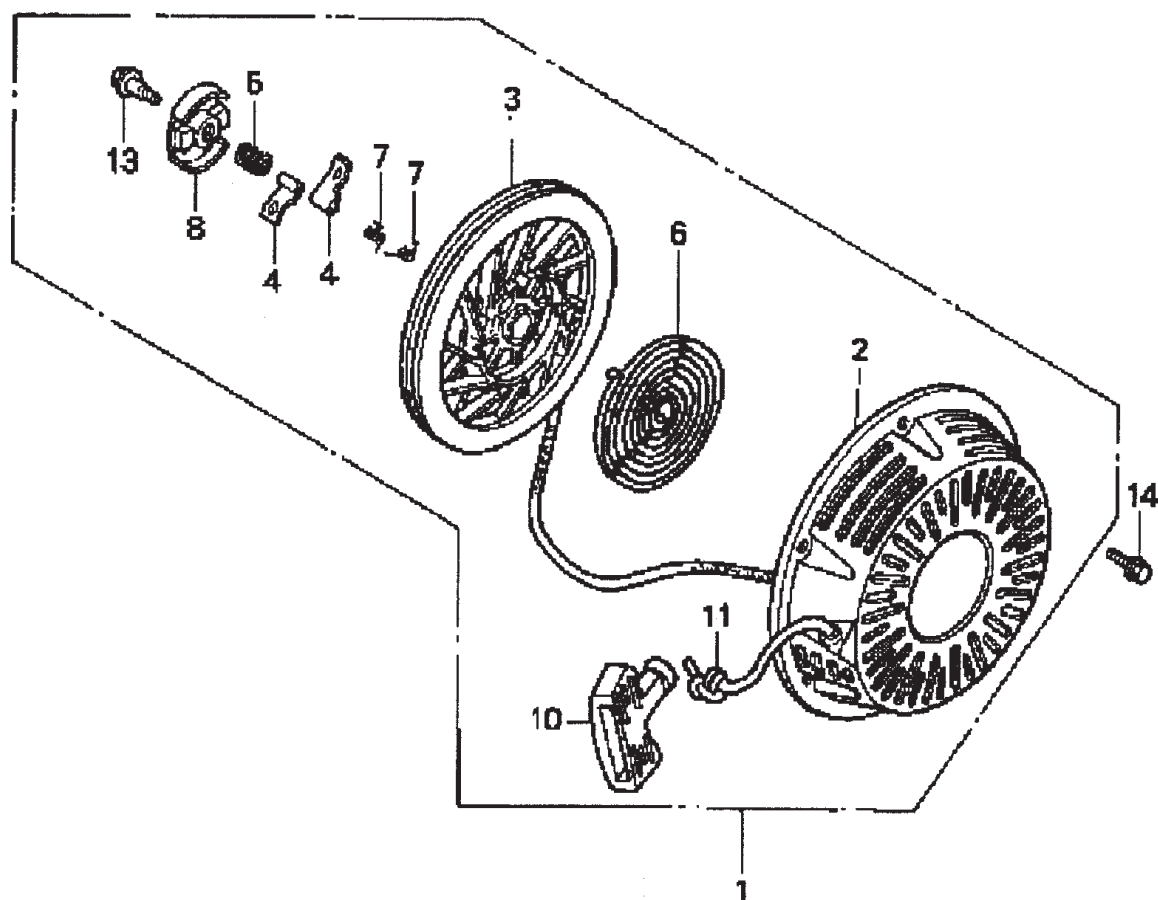
HONDA GX240K1HA2 ENGINE — PISTON ASSY.



HONDA GX240K1HA2 ENGINE — PISTON ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
4	13200ZE2305	ROD ASSY., CONNECTING, US 0.25, OPT.	1	
5*	90001ZE8000	BOLT, CONNECTING ROD	2	
6	90551ZE1000	CLIP, PISTON PIN 18MM	2	

HONDA GX240K1HA2 ENGINE — RECOIL STARTER ASSY.

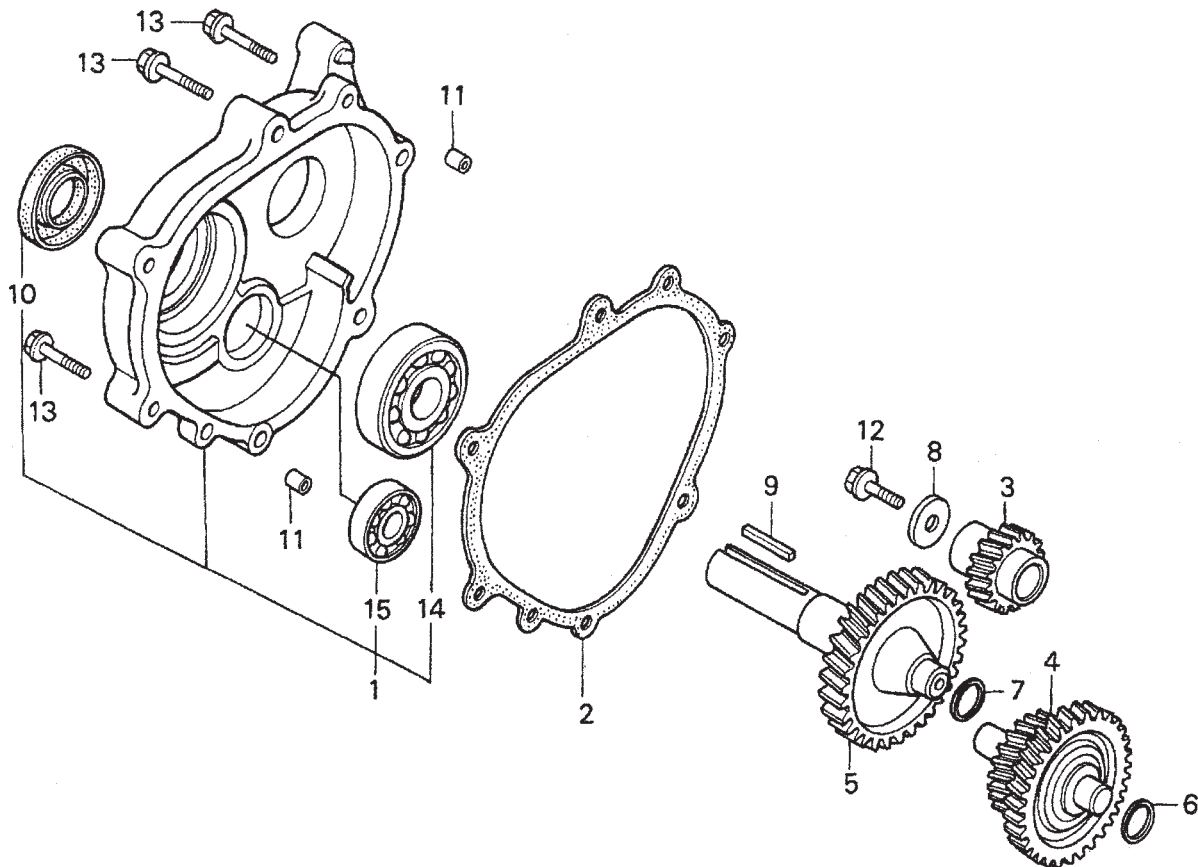


HONDA GX240K1HA2 ENGINE — RECOIL STARTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2*	28410ZE2W01ZB	CASE COMP., RECOIL STARTER *NH1*, BLK	1	
3*	28421ZE2W01	PULLEY, RECOIL STARTER	1	
4*	28422ZE2W01	RATCHET, STARTER	2	
5*	28441ZE2W01	SPRING, FRICTION	1	
6*	28442ZE2W01	SPRING, STARTER RETURN	1	
7*	28443ZE2W01	SPRING RATCHET	2	
8*	28444ZE2W01	RETAINER, SPRING	1	
10*	28461ZE2W02	GRIP, STARTER	1	
11*	28462ZE2W11	ROPE, RECOIL STARTER	1	
13*	90004ZE2W01	SCREW, CENTER	1	
14	90008ZE2003	BOLT, FLANGE 6X10	3	

*

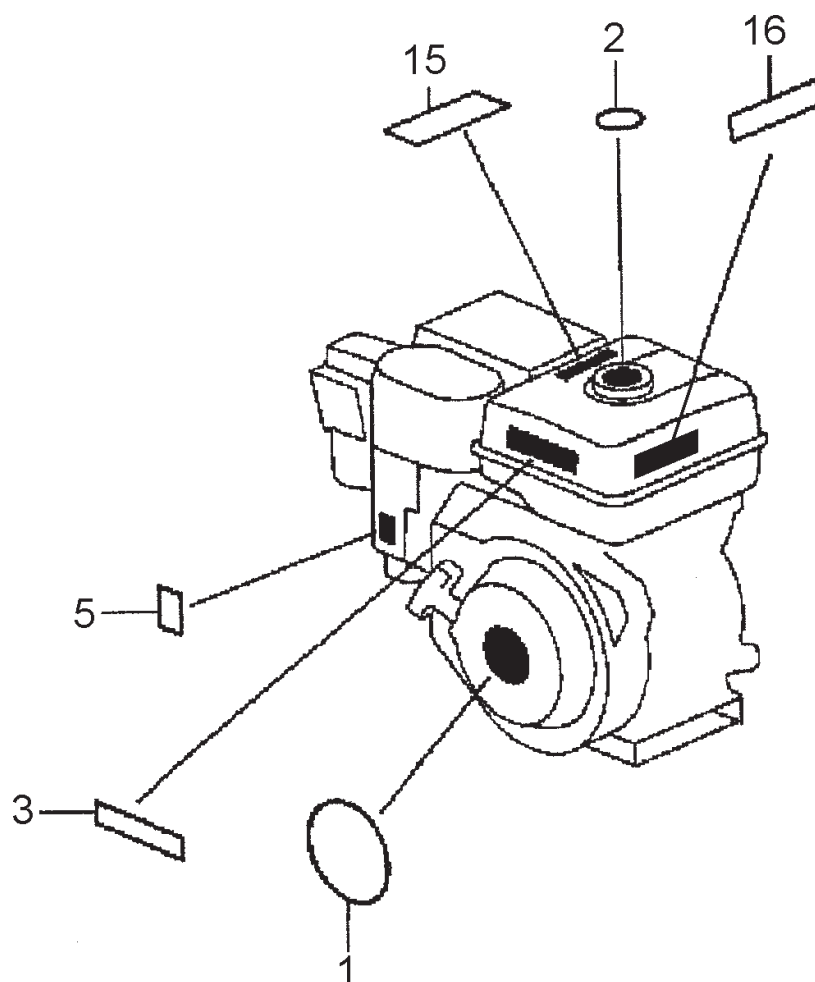
HONDA GX240K1HA2 ENGINE — GEAR REDUCTION ASSY.



HONDA GX240K1HA2 ENGINE — GEAR REDUCTION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
				*
2	11521ZE2800	GASKET, CHAIN CASE COVER	1	
3	22103ZE2620	GEAR, PRIMARY DRIVE (17T)	1	
4	23220ZE2621	COUNTERSHAFT	1	
5	23710ZE2621	SHAFT, P.T.O. (H- TYPE)	1	
6	90401ZE2620	SHIM A (OPTIONAL)	AR	
7	90402ZE2620	SHIM B (OPTIONAL)	AR	
8	90473842000	WASHER (8MM)	1	
9	90745ZE2600	KEY (6.3 X 6.3 X 43)	1	
10*	91201890003	OIL SEAL (30 X 46 X 8)	1	
11	9430108140	PIN A, DOWEL (8 X 14)	2	
12	957010802500	BOLT, FLANGE (8 X 25)	1	
13	957010804000	BOLT, FLANGE (8 X 40)	6	
14*	961006206000	BEARING, RADIAL BALL (6206)	1	
15*	961006302000	BEARING, RADIAL BALL (6302)	1	

HONDA GX240K1HA2 ENGINE — LABEL ASSY.



HONDA GX240K1HA2 ENGINE — LABEL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
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A DIVISION OF MULTIQUIP INC.

Terms and Conditions of Sale STOW Construction Equipment

PAYMENT TERMS

Terms of payment for unit sales are 2% 15 days net 30 days from date of invoice unless otherwise specifically stated on our invoice. Parts invoices have terms of net 10 days. **Minimum parts billing is \$15.00 net.**

Applicable discounts will be computed on merchandise value only. Late charges will be assessed at prevailing rates. Cash discounts cannot be taken on current billings if any previously billed amounts are past due.

FREIGHT POLICY

Freight policy is established to offer customers every advantage possible. Due to bulk freight ratings on some equipment and other shipping considerations, freight policies differ by equipment type. Actual back freight may be charged for shipments originating from other than specified FOB warehouses. **See Freight Policy for details.**

All STOW domestic sales are FOB nearest available designated MQ/STOW warehouse. Export orders are ex-works factory located in Carson, CA or Boise, ID.

Additions to orders already shipped cannot be accepted for freight minimums.

Should STOW elect to make partial shipments of an order originally complying with the "freight allowed" requirements, transportation charges will be absorbed by STOW on any subsequent shipment applying to that order.

All other orders will be shipped collect or prepaid with charges added to the invoice. STOW's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

Parts: FOB Carson, California or Boise, Idaho. **See Freight Policy for details and additional discounts.**

DROP SHIPMENTS

STOW reserves the right to refuse Drop Shipments outside the normal service area of the purchasing dealer.

FIELD WAREHOUSES

Field Warehouses are currently located in California, Georgia, Idaho, Iowa, and New Jersey

SPECIAL EXPEDITING SERVICE

The higher of a \$35.00 surcharge or actual costs will be added to the invoice for special handling, including bus shipments, or in cases where STOW personnel must personally deliver the equipment or parts to the carrier.

RETURNED GOODS POLICY

Return shipments may be accepted and credit allowed, subject to the following provisions.

1. A Returned Material Authorization (RMA) must be approved by STOW prior to shipment. Approvals for returned goods must be with just cause and are at the sole discretion of STOW. A copy of the Authorization must accompany the shipment to the designated Warehouse.
2. Parts being returned must be listed as currently supplied on the current parts list.
3. Parts must be in new and resalable condition in the original package, with part numbers clearly marked.
4. Units and accessories must be current models in the latest price list and in new and resalable condition.
5. Special order items are not returnable for credit.
6. Credit on returned parts and units will be issued at actual dealer net price at time of purchase less 15% restocking charge.
7. All returned shipments are to be made to the STOW designated receiving point, freight prepaid at the sender's expense.

The sender will be notified of any material received that does not meet the above provisions. Such material will be held for 30 days from notification pending instructions. If a reply is not received within 30 days, the material will be returned to the sender at his expense with no credit issued.

PRICING, REBATES AND SPECIFICATIONS

Every effort will be made to provide adequate notice of changes; however, prices and equipment specifications are subject to change without notice.

Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price.

Rebates for price reductions and added charges for price increases will not be made for stock in dealer inventory at the time of a price change.

STOW reserves the right to quote and sell direct to Government agencies and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

LIMITATION OF SELLER'S LIABILITY

STOW shall not be liable hereunder for damages in excess of the purchase price of the item with respect to which damages are claimed and in no event shall STOW be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

There are no warranties, express or implied, made by STOW. hereunder on Products manufactured or distributed by it except the warranty against defects in material and workmanship on new Products to the original purchaser, as set forth in the STOW New Product Limited Warranty.



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STOW CONSTRUCTION EQUIPMENT

POST OFFICE BOX 6254
CARSON, CALIFORNIA 90749
310-661-4242 • 877-BUY-STOW
FAX: 310-604-9237
E-MAIL: stow@stowmfg.com
www.stowmfg.com

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OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

PARTS DEPARTMENT

800-427-1244 FAX: 800-672-7877
310-537-3700 FAX: 310-637-3284

SERVICE DEPARTMENT

800-478-1244 FAX: 310-537-4259
310-537-3700

TECHNICAL ASSISTANCE

800-478-1244 FAX: 310-631-5032

WARRANTY DEPARTMENT

800-421-1244, EXT. 279 FAX: 310-537-1173
310-537-3700, EXT. 279

SALES DEPARTMENT

310-661-4242 FAX: 310-604-9237
877-289-7869 (877-BUY-STOW)

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This manual must accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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MQ STOW CONSTRUCTION EQUIPMENT

A DIVISION OF MULTIQUIP INC.

POST OFFICE BOX 6254

CARSON, CA 90749

310-537-3700 • 888-252-MQ STOW [888-252-7869]

FAX: 310-537-1986 • FAX: 800-556-1986

E-MAIL: MQ STOW@multiquip.com • WWW: stowmfg.com